DOCUMENT RESUME

ED 153 984 SP 012 667

AUTHOR	Millar, Hilary E. C.
TITLE	Approaches to Adolescent Health Care in the 1970's.
INSTITUTION	Health Services Administration (DHEW/PHS), Rockville, Md. Bureau of Community Health Services.
REPORT NO	DHEW-HSA-76-5014
PUB DATE	75
NOTE	52p.
AVAILABLE FROM	Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402 ($1.50)
EDRS PRICE	MF-$0.83 HC-$3.50 Plus Postage.
DESCRIPTORS	*Adolescents; Health; *Health Needs; *Health Services; State of the Art Reviews; Trend Analysis
IDENTIFIERS	*Group Characteristics; *Health Care

ABSTRACT

This publication presents an overview of adolescent behavior as related to health, an inventory of adolescent health problems, an outline of services presently available, and some suggestions for future trends. (Author)

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Approaches to ADOLESCENT HEALTH CARE in the 1970s

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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U.S. Department of Health, Education, and Welfare / Public Health Service / Health Services Administration

Approaches to ADOLESCENT HEALTH CARE in the 1970s

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DHEW Publication No. (HSA) 76-5014
1975

PREFACE

The recognition of adolescents as a separate group having its own characteristics occurred early in the 1960s. The significance and impact of this age group category was not appreciated until several years later.

Young people have in many ways served as a national tonic; they have forced more direct communication between individuals, parents, the media, and institutions. They have also demanded a showdown where policies have appeared to be counter to the interests of the people or the Nation. At the same time, these young people have inherited unresolved social problems to which have been added new dimensions almost unknown to earlier generations. Technology has overtaken the humanities, and in the process formal education is no longer a complete answer to the vocational needs of the young. These and many other factors have contributed to the dissatisfaction and alienation of youth in our society.

The growing concern for the health of adolescents is reflected in the popular and scientific literature. Programs for the provision of health care for adolescents have been initiated under many different auspices. Unfortunately, there are not now enough services and those available are not always appropriately presented for this vulnerable and sensitive target population.

It is increasingly difficult to separate health needs from other social deficits relating to welfare, education, housing, recreation, vocational training, and delinquency. Human service delivery systems are interdependent, and one system will cease to be responsive if isolated from the other strands in the rope. Therefore health services must be offered with reference to other social systems at both clinical and administrative levels. Planning for relevant services must be directed at the individual, but the study of characteristics of the group from which the young person emerges may clarify the extent of services required.

The Federal Government is increasingly aware of the health problems of adolescents. Many programs receiving support from the Government provide services sought by young people. However, these services tend to be scattered, fragmented, and uncoordinated. By strengthening these programs, adolescent health care may be improved across the country.

This publication presents an overview of adolescent behavior as related to health, an inventory of adolescent health problems, an outline of services presently available, and some suggestions for future trends. Adolescent

health difficulties are being encountered at increasingly early ages, which suggests that preventive measures and health education should be initiated during the elementary school years if they are to be effective.

Artwork for the cover has been supplied through the courtesy of Roche Laboratories, Division of Hoffmann-LaRoche, Inc., Nutley, New Jersey, Copyright 1974. I am most grateful to Roche Laboratories for their permission to use this illustration.

Many colleagues in the Society for Adolescent Medicine and the American Academy of Pediatrics have provided information and advice. I am particularly appreciative of time spent reviewing the manuscript by: Dr. Michael Cohen, Montefiore Hospital, New York City; Dr. Adele Hofmann and staff, Bellevue Hospital, New York City; Dr. Joseph Rauh and staff, Children's Hospital, Medical Center, Cincinnati, Ohio; and Dr. Loraine Henricks, The Door—A Center of Alternatives, New York City. Their interest and support has contributed to development of a broad picture of the adolescent condition.

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INTRODUCTION

The American public has become increasingly aware of adolescents during the 1960s and 1970s. These young people, who are no longer strictly in childhood but are not yet adequately prepared to enter the adult world, have acquired a specific identity as a population searching for emotional and social maturity on their own terms. This phenomenon of specific identity is not confined to the United States. It is seen in most countries in which the level of affluence permits a prolongation of dependent behavior beyond the period of puberty.(1)

Estimates by the U.S. Bureau of the Census for 1972 show that 45 percent of the 209 million population in the United States were less than 25 years of age. Within this category there were 42 million between the ages of 10 and 19 who could unequivocally be labeled adolescents. Projections of present trends indicate that the number of adolescents in the United States may reach 54 million by the year 2000.

What are the prospects that high-quality medical care will be available for America's teenagers in the late 1970s and during the rest of the 20th century?

In the 1970s the inner cities have too few medical practitioners and many rural areas have none at all. Even in communities where the ratio of practitioners is more favorable, adolescents find it difficult to get adequate health care. Thus, American adolescents—whether from poor or affluent homes—must be considered medically underserved.

The provision of health care for the adolescent sector of the U.S. population has received only minimal attention for several reasons. Teenagers have generally been viewed as an essentially healthy group whose members make few demands on the medical profession. Apart from emergency situations, they usually do not seek care between the time of the last visit to the pediatrician—traditionally made at 12 years of age—and adulthood. Many health professionals have not established rapport with the adolescent patient because they have not been adequately prepared to deal with the problems and complications stemming from unconventional life styles. Financial barriers, requirements of parental consent, and other restrictive red tape often discourage teenagers from going to a clinic or hospital.

Historically, teenagers received care in pediatric settings where they often felt too big or out of place among much younger patients. The alternative was the adult clinic or ward, where teenagers were often exposed to sights and sounds associated with serious illness and the process of dying. A teenager developed an even greater sense of isolation in such an environment.

The special health needs of teenagers gained recognition in the 1950s. One of the leaders was Dr. Roswell Gallagher, a Boston internist, who drew attention to the medical problems peculiar to adolescents in his writing and his teaching. (2) Dr. Gallagher advocated that adolescents be given the support and companionship of their contemporaries at the time they received health care. Adopting this idea, several health agencies opened adolescent outpatient clinics centered around diseases prevalent in this age group—rheumatic heart disease, diabetes, and chronic nephritis, for example. These clinics proved to be highly successful.

For the teenager needing hospitalization, the development of an adolescent inpatient unit seemed a possible answer to the dilemma of

isolation. Such a unit was opened at Children's Hospital in Washington, D.C., under the direction of Drs. Milton Greenberg and William Burdick in 1957. This was also highly successful because it reduced the emotional impact of hospitalization.

Medical centers throughout the United States soon followed these pioneer examples and enlarged their departments of pediatrics to include special facilities for adolescents. Hospital services also became more responsive to the medical needs of teenagers.

Initially, intense interest in the adolescent and his health was limited to academic settings. However, as pediatricians whose training had included the medical problems of adolescents entered community practice, they offered to serve teenagers. General practitioners, internists, and others gradually extended services to adolescents.

During the 1950s there was an increasing awareness of the significance of rapid growth during adolescence. This led to a new look at physiological changes occurring at the end of childhood and the recognition that an adolescent must be considered at his or her maturational level rather than only at a chronological age.

From 1965 to 1975, the health needs of adolescents outstripped existing capabilities both in volume and scope. There is still no satisfactory health care system available in the United States, and few adolescents are receiving appropriate or adequate health care.

Even within a single clinic, school, or health department, services tend to be highly fragmented. Many teenage patients drift through an organization's resources, leaving a trail of uninterpreted tests and procedures. It is rare for all patient information to be coordinated into the individual health profile that could serve as the basis for a comprehensive health care plan.

Failure to recognize the patient as a human being is particularly offensive to those in their teens, who are almost by definition highly sensitive to real or implied infringement of their rights to individual respect and consideration. A related barrier to quality medical care is the reluctance of many adolescents to bring health problems to a practitioner or facility associated with their parents, which might check the independence most are striving for.

The concept of adolescent medicine has shifted from hospital-based care of teenagers with diagnosed diseases to broader care of usually healthy teenagers in a community setting. This encompasses primary care, large volumes of health education, and preventive services.

All youth deserve good, responsive health care—whether they are black, white, Hispanic, Indian, or oriental; whether they come from poor, middle-class, or affluent families; whether they live in rural, inner-city, suburban, or small town settings; and whether they are in school, in the work force, or are unemployed.

More, different, and appropriately distributed services must be provided if adolescents are not merely to experience an absence of disease, but are to enjoy the benefits of good health.

CHARACTERISTICS OF ADOLESCENTS

Why do adolescents appear to have changed so much in less than a generation? The whole process of life has acquired an accelerated pace in the last third of the 20th century. Instant communication and a technology that outstrips the human sophistication of its benefactors have caused the social fabric to wear thin.

This is apparent in the family structure. The multi-generational family unit is rapidly disappearing, and an increasing number of children are living in one-parent homes. Children now in their teens were raised in an atmosphere of extreme permissiveness and encouraged to be assertive and precocious. Their parents were engulfed in a new enlightenment about all aspects of child rearing. The goal was creative, happy, well-adjusted children. However, the rebelliousness and other negative characteristics that the permissiveness was reputed to prevent have appeared with renewed vigor at the onset of puberty.

Many other sociological and environmental changes have taken place, including changes in the school system, the high standard of living achieved by affluent suburban families, the second and third generations of inner-city and rural families subsisting at poverty levels, the decline of organized religion, and the influence of television on the child who has watched 15,000 hours by age 15. All these and more have had a direct impact on the adolescent.

The characteristics of teenagers predispose them to a range of experiences, including experimentation with drugs, pregnancy, venereal disease, and unprecedented emotional disorders.

Adolescents are far from being a homogeneous group. Regional, ethnic, cultural, and economic influences produce many different kinds of adolescent behavior. There are, however, common threads that bind young people together into what is frequently labeled a separate subculture. For example, the inner drive for freedom and independence is essentially the same for all adolescents, even if their achievements and frustrations appear to follow different patterns.

Young people in the 1970s are exposed to a technologically oriented society in which the scale of human values is constantly changing. Their subscription to common values varies mainly in degree. These values are related to Burlingame's classic description of the dynamics of adolescence:

- Discontinuity with other generations is nurtured, and links with tradition are severed. The prevailing attitudes stress an antipathy between the adolescents and adults.
- The peer group relationship is prized over all other associations.
- Symbols or hallmarks of the group have universal acceptance, as is apparent in the adolescents' language, dress, approved music, and visual art forms.
- A critical, rebellious posture is developed toward established social systems (3)

The Normal Teenager

American society has identified adolescence as a period of friction, change, and problems. Normal adolescence has not been defined further, except as the transition to adulthood.

Adolescence is often marked by undue disruption in the lives of closely related adults, as well as in the lives of young people themselves. To a large degree, teenagers function

within the limits of their parents' expectations, although there may be repeated testing of these limits.

Large numbers of people come through adolescence without overt problems and achieve more or less what their parents desire for them; we do not know how many there are in this group. (Perhaps these seemingly well-adjusted adolescents undergo the same inner turmoil as their more rebellious peers, but are subject to greater controls from both within and without in the repression of disturbing attitudes and action.)

Scientific literature and popular literature contain little information about the teenagers who make a smooth transition into adult life. Instead, available data seem to detail the negative aspects of the adolescent phase of life and reinforce this reputation with many examples. Complicating the etiology of a normal teenager is the fact that social behavior is changing rapidly: what may have been taboo 5 years ago has become acceptable this year.

One reason for the lack of information about normal teenagers may be the absence in our culture of an accepted ceremony when a clear line of demarcation is drawn between the boy and the man, the girl and the woman. Margaret Meade has described the series of ceremonial events in other cultures most vividly in "Growing up in Samoa."

Samoans live in a fixed society where as children they know precisely what they will later be, even to fine details of speech and dress. But this is a closed society with no options for adolescents and no opportunities for creativity or advancement. It is enormously vulnerable to outside influences of destruction and diffusion.

In North America, symbolic substitutes announce maturity, but these tend to be superficial and inconsistent. For some, the successful outcome of a driving test and acquisition of car keys is a mark of being grown up. For others, the achievement of sexual intercourse serves as the point when childhood is left behind. These acts are not openly accepted as status symbols of maturity by our society, however.

The world of commerce has capitalized on the teenage market, producing successive gimmicks to capture pocket money. Slogan T-shirts, suggestive patches, deliberately torn and patched clothing, posters, comic books, records, each vying to outdo the last, point to the extremes. The potential buying power of teenagers is a key in much national advertising. Worldwide economic recession may impose different values on the young and old alike. (4)

Many young people display energy, enthusiasm, vitality, and idealism. Increasing numbers of them are committed to the helping professions. They support with zeal the challenge to preserve the ecology. Young men and women, exercising their constitutional rights to free speech, led the efforts to end the Vietnam War.

Dr. Louis L. Fine, assistant professor of pediatrics at the University of Colorado Medical Center at Denver, says, "Adolescence represents a developmental continuum between childhood and adulthood. Assessment of an adolescent's behavior can be based upon his efforts in accomplishing developmental tasks and his functioning relative to his stage of development—early adolescence and the casting off of childhood; middle adolescence with the teenage subculture; or late adolescence and the establishment of adult values. One should be aware of the conflicts and complications which may arise in each stage of development, and routinely evaluate the adolescent's functioning within his family, peer group and school situation. Assessing behavior in this frame of reference enables the physician to differentiate variations of normal development and behavior from pathological states in his adolescent patients." (5)

All adolescents must at some time resolve situations related to:

- Self-image, identity, and desire for self-esteem.
- Acceptance of change within themselves.
- Struggle to attain independence.
- Relationship with peers.
- Relationship with the opposite sex.
- Cognitive and vocational achievement.
- Ability to control moods of depression and desires to act out. (6)

A survey in which teenagers were asked to identify their own personal problems was conducted by Jack J. Sternlieb and Louis Munan at the University of Sherbrooke, Quebec, Canada.

School problems were mentioned most frequently, by 30.1 percent of the teenagers responding; family problems were cited by 20.9 percent. (See table 1.)

There may be a marked negativism prevalent in personal encounters outside the chosen clique. An increasing number of youngsters elect to leave the mainstream of life, at least temporarily.

The generation gap is kept open by the aimlessness that is so often a part of the behavioral uniform of the young. Many teenagers consider it unacceptable to plan for a future, a career, or even a weekend. The refusal to formulate a life plan or to follow through on a lesser task is part of the total lack of acceptance of what teenagers perceive as the mores of their parents' generation. Frequently this leads to a calculated act of rejection and defiance.

The changes of adolescence are not really storm centers of chaos and turmoil that they seem, but rather are the normal crises through which there is the possibility for growth. (7)

The Maturation Process

Youngsters mature at different ages and at different rates. Each stage has its typical developmental characteristics. Adolescents no sooner

Table 1.—Identification of the most important personal problems of youth (Survey of 15- to 21-year-olds in Sherbrooke, Quebec, Canada)

Personal Problems	Total Respondents & Percent (n = 1,331)	Number of Respondents with Problems and Percent with Problems* (% of n in column heading)				
		Secondary Schools (n = 744)	Workers (n = 221)	Jr. College (n = 162)	University (n = 126)	Trainees (n = 78)
School	401	322	16	32	20	11
	30.1%	43.3%	7.2%	19.7%	15.8%	14%
Family	278	164	58	34	9	13
	20.9%	22.0%	26.2%	20.9%	7.1%	17%
Sex	220	122	29	28	16	25
	16.5%	16.4%	13.1%	17.3%	12.6%	32%
Religious	216	125	36	19	17	19
	16.2%	16.8%	16.3%	11.7%	13.4%	24%
Communication (adult)	178	106	36	15	12	9
	13.4%	13.7%	16.3%	9.3%	9.5%	12%
Psychological	160	80	16	30	22	12
	12.0%	10.7%	7.2%	18.5%	17.4%	15%
Work adaptation	159	87	28	12	19	13
	11.9%	11.7%	12.7%	7.4%	15.0%	17%
Communication (adolescent)	112	63	20	12	6	11
	8.4%	8.5%	9.0%	7.4%	4.7%	14%
Drug	92	57	11	8	5	11
	6.9%	7.7%	5.0%	4.9%	3.3%	14%
Alcohol	91	45	16	9	7	14
	6.8%	6.0%	7.2%	5.5%	5.5%	18%
Others	51	27	6	6	4	8
	3.8%	3.6%	2.7%	3.7%	3.1%	10%

* Absolute and percent distribution by class of respondent.

Source: Jack J. Sternlieb and Louis Munan, "A survey of health problems, practices, and needs of youth," Pediatrics, Feb. 1972.

become used to one change than there is another to contend with. Each change can be a learning experience and can eventually enhance the youngster's resourcefulness.(8)

To make a distinction between puberty and adolescence, we can define *puberty* as the purely biological stage of sexual development at which it is first possible to bear or beget children, and *adolescence* as the period when social, psychological, and cognitive maturation takes place. Adolescent manifestations may start at or before puberty and extend beyond the completion of physical maturity.

Puberty must occur about 1 or 1½ years before a child can successfully enter adolescence. Therefore, late bloomers have a specific set of difficulties not encountered by those who develop at an average rate.

Dr. Felix P. Heald, University Hospital, Department of Pediatrics, Baltimore, Maryland, states, "Adolescence is characterized by interrelated rapid biologic change, not only by increased body mass, but also by changes in size, shape, and composition; the rapid maturation of the gonads is accompanied by changes in the secondary sex characteristics. Prior to adolescence at about the eighth year, boys and girls are quite similar, although body composition and reproductive organs differ. After adolescence, the two sexes are markedly different in terms of anthropometric measurements and body composition.

"For the past half century investigators have been attempting to characterize physical changes that occur during adolescence. Sequential or longitudinal data characterizing the sequence of these changes in boys and girls are somewhat limited, but from longitudinal data available, it is possible, with some degree of precision, to characterize the adolescent spurt.

"The general character of human growth is one of decreasing velocity, beginning immediately after birth and changing significantly only during adolescence when the velocity of growth seems to increase suddenly. A rapid rise in height and weight characterizes the adolescent growth spurt. Growth increments are smaller in girls than in boys and occur approximately 2 years earlier."(9)

Growth increments were first established by Dr. J. M. Tanner, professor of child health and growth at the University of London. He found that during the year of maximal growth, the growth rate for boys ranges from 7 to 12 cm with a 9 cm average and the rate for girls, from 6 to 11 cm with an 8.4 cm average.(10)

When body measurements were related to the degree of maturity a child had acquired, they were found to be more meaningful than when considered in relation to chronological age alone. Charts that show developmental levels through the recording of serial measurements were helpful in assessing maturity and predicting patterns of growth. But it was later found that standard charts did not allow for variables of sex, race, or economic differences.

A maturity rating system was devised and subsequently validated by Dr. W. W. Gruelich, currently on the staff of the Department of Anatomy at Stanford University. Tanner added precision to the evaluation by citing variations in the normal pattern of pubertal changes for both boys and girls.(11) Physicians caring for adolescents frequently utilize the criteria of Tanner to classify maturity stages. (See table 2.)

The maturation of the sex organs is of extreme importance. In girls, breast budding occurs almost concurrently with the appearance of pubic hair. The average development of both these secondary sex characteristics is completed in 3 years.

The onset of menstruation may occur at any time after the growth spurt, from 9 to 17 years of age. Statistically, if a girl has not reached the menarche by 13½ years, she can be considered as significantly delayed for onset of puberty.(12)

Pubertal changes in boys also follow established patterns. Enlargement of their external genitalia has served as the criterion for establishing not only the onset of puberty but also the classification of the degree of pubertal development. Ninety-five percent of boys begin to develop somewhere between 9½ and 15½ years, with adult stages of genital development occurring within the next 3 to 5 years.

Peak growth velocity in height occurs 2 years later in boys than in girls. Knowledge of peak growth velocity is useful in predicting the sequence of pubertal events. Secondary sexual characteristics are helpful in the determination of the onset of puberty.

Table 2.—Tanner pubertal stages

Boys: Genital Development

Stage 1	Pre-adolescent: Testes, scrotum and penis are about the same size and proportion as in early childhood.
Stage 2	Scrotum and testes are enlarged. Skin of scrotum reddened and changed in texture. Little or no enlargement of penis is present at this stage.
Stage 3	Penis is slightly enlarged, which occurs at first mainly in length. Testes and scrotum are further enlarged.
Stage 4	Increased size of penis with growth in breadth and development of glands is present. Testes and scrotum larger; scrotal skin darker than in earlier stages.
Stage 5	Genitalia adult in size and shape.

Girls: Breast Development

Stage 1	Pre-adolescent: Elevation of papilla only.
Stage 2	Breast bud stage: Elevation of breast and papilla as small mound. Enlargement of areola diameter.
Stage 3	Further enlargement and elevation of breast and areola, with no separation of their contours.
Stage 4	Projection of areola and papilla to form a secondary mound above the level of the breast.
Stage 5	Mature stage: Projection of papilla only, due to recession of the areola to the general contour of the breast.

Both Sexes: Pubic Hair

Stage 1	Pre-adolescent: The vellus over the pubes is not further developed than that over the abdominal wall: i.e., no pubic hair.
Stage 2	Sparse growth of long, slightly pigmented downy hair, straight or curled, chiefly at the base of the penis or along labia.
Stage 3	Considerably darker, coarser and more curled. The hair spreads sparsely over the junction of the pubes.
Stage 4	Hair now adult in type, but area covered is still considerably smaller than in the adult. No spread to the medial surface of thighs.
Stage 5	Adult in quantity and type with distribution of the horizontal (or classically 'feminine') pattern. Spread to medial surface of thighs but not up linea alba or elsewhere above the base of the inverse triangle.
Stage 6	Spread up linea alba.

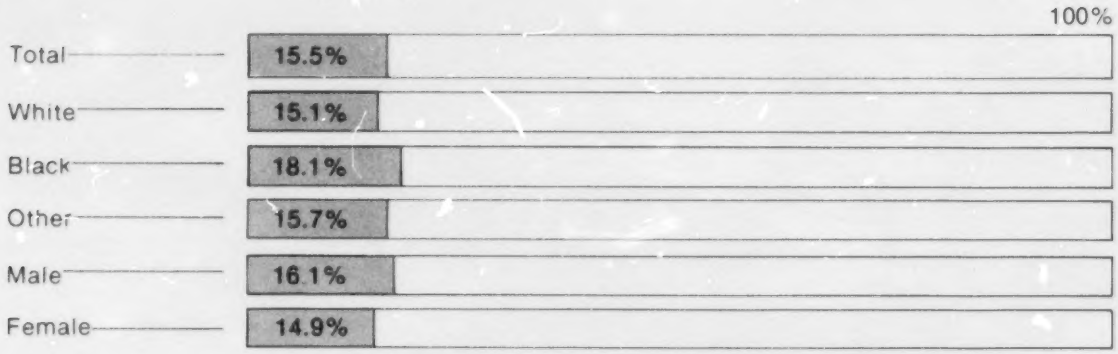
Source: J.M. Tanner, "Growth and endocrinology of the adolescent," Endocrine and Genetic Diseases of Childhood, L.I. Gardner, ed., Philadelphia, W.B. Saunders Co., 1969, cited in "The approach to the adolescent patient," The Pediatric Clinics of North America, 20:4, p. 785, Nov. 1973.

There are discrepancies in the way that the relative stage of maturation is determined for boys and girls. In the male, primary sexual characteristics, such as increases in testicular size, can be measured; in the female, however, direct ovarian assessment is impossible, so secondary sexual characteristics, such as breast development, must be used.

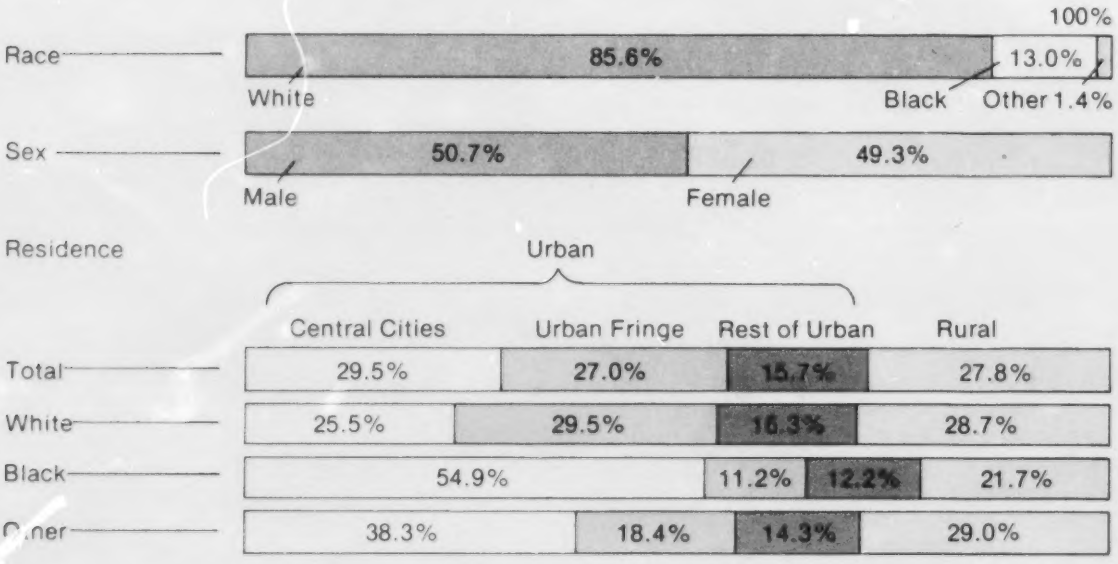
Maximum rate of growth in boys is achieved by 14.1 years. In contrast to girls, who achieve their maximal height early in genital development, boys usually attain their height when their genitalia are quite well developed. Voice change in the male is a gradual process, and at present cannot be used as an index of any one particular stage of development.

Dr. William Daniel, professor of pediatrics, Medical College of Alabama, points out, "Judging from available longitudinal and cross-sectional information, secular growth changes during the past 100 years have been most interesting. During this period almost every successive generation has been taller, averaging a 1-inch gain in height every 30 years or so. Menarche has been occurring earlier; it has changed from an average age of onset of 17 years to the present age 12 in the United States. Environment has had much to do with this change, but many writers believe it is not the sole reason. At present, it seems as if the trend has reached its zenith with well-nourished children who have received good medical and environmental care."(13)

Demographic Data — 12-19 Year Olds as Percentage of U.S. Population: 1970

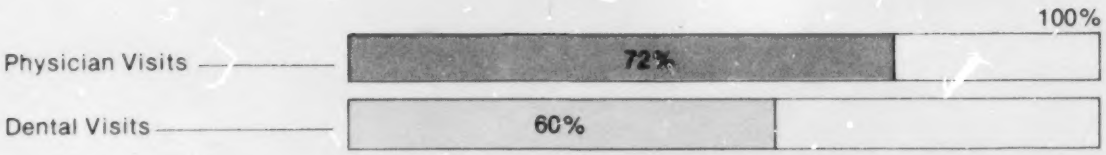


Demographic Data — Race, Sex, and Residence of 12-19 Year Olds: 1970



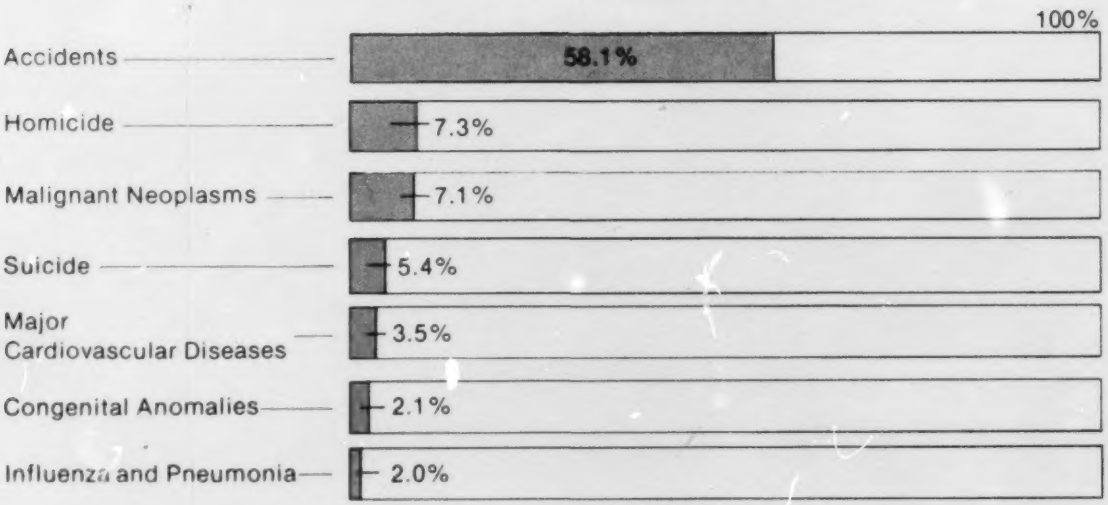
Source: Maternal and Child Health Study Project, MSRI,
Using Data from 1970 U.S. Census

Percentage of 12-19 Year Olds Making Visits to Physicians and Dentists: 1972



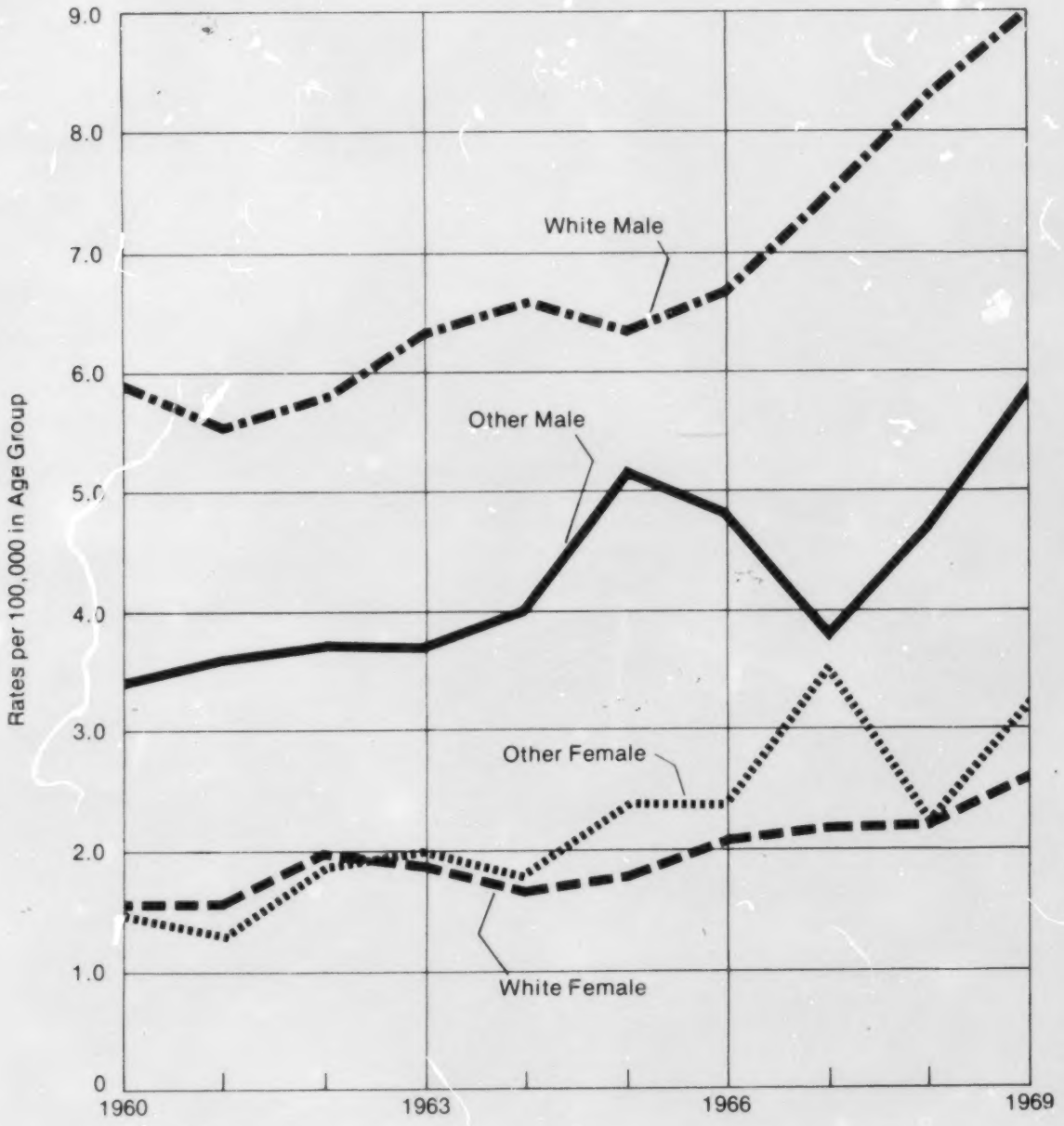
Source: Maternal and Child Health Project, MSRI,
Using Data from National Center for Health Statistics

Leading Causes of Death as Percentages of All Deaths, Ages 12-19: 1973



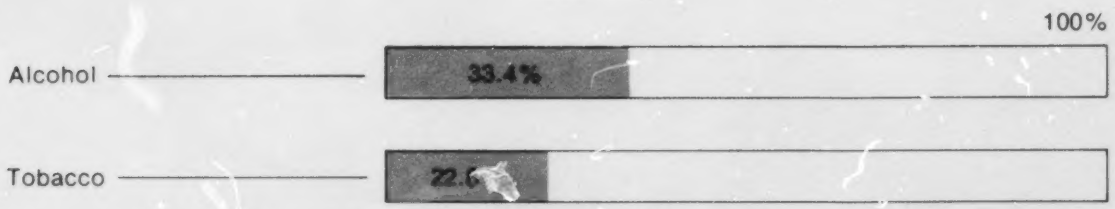
Source: Maternal and Child Health Project, MSRI,
Using Data from National Center for Health Statistics

Suicide Rates Among 15-19 Year Olds: 1960-69

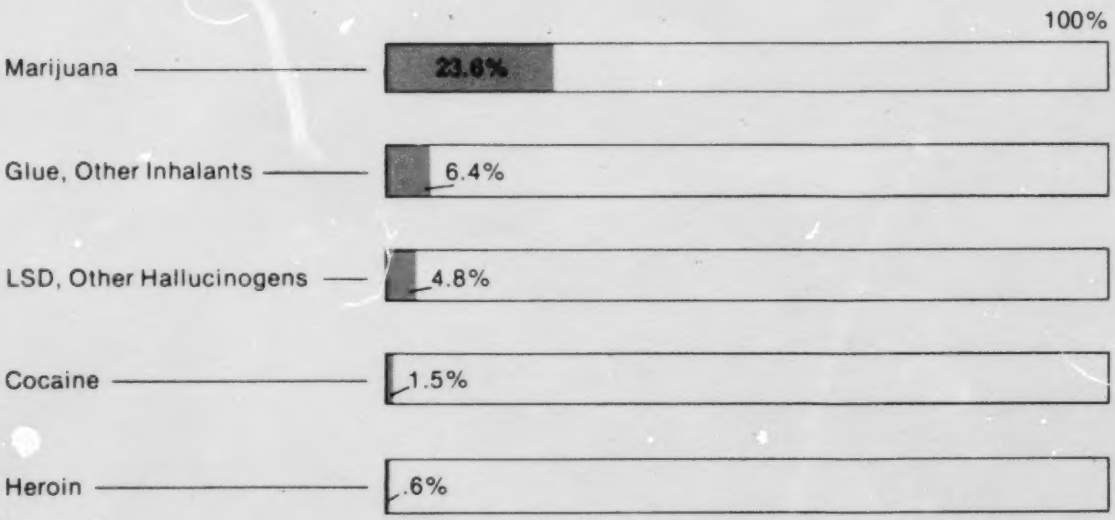


Source: National Center for Health Statistics

Percentage of 12-19 Year Olds Using Alcohol and Tobacco: 1972

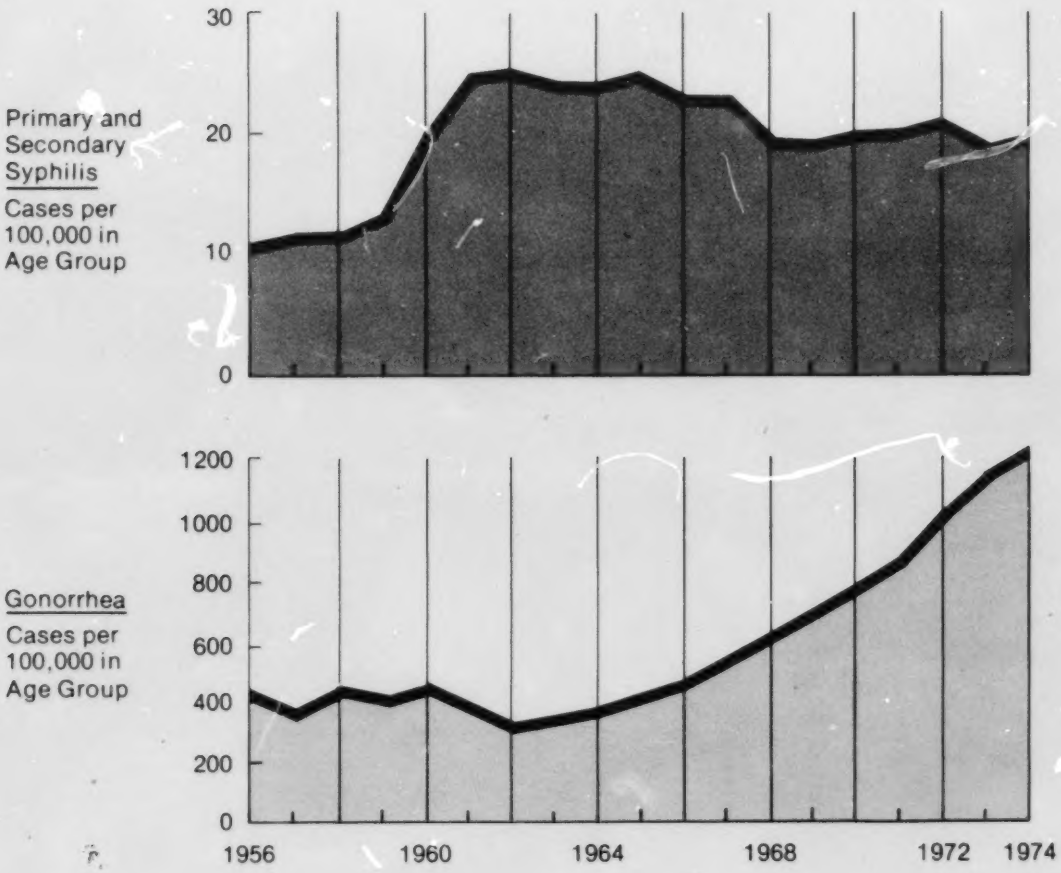


Percentage of 12-17 Year Olds Who Have Ever Used Marijuana and Other Drugs: 1972



Source: Maternal and Child Health Project, MSRI,
Using Data from National Commission on Marijuana and Drug Abuse

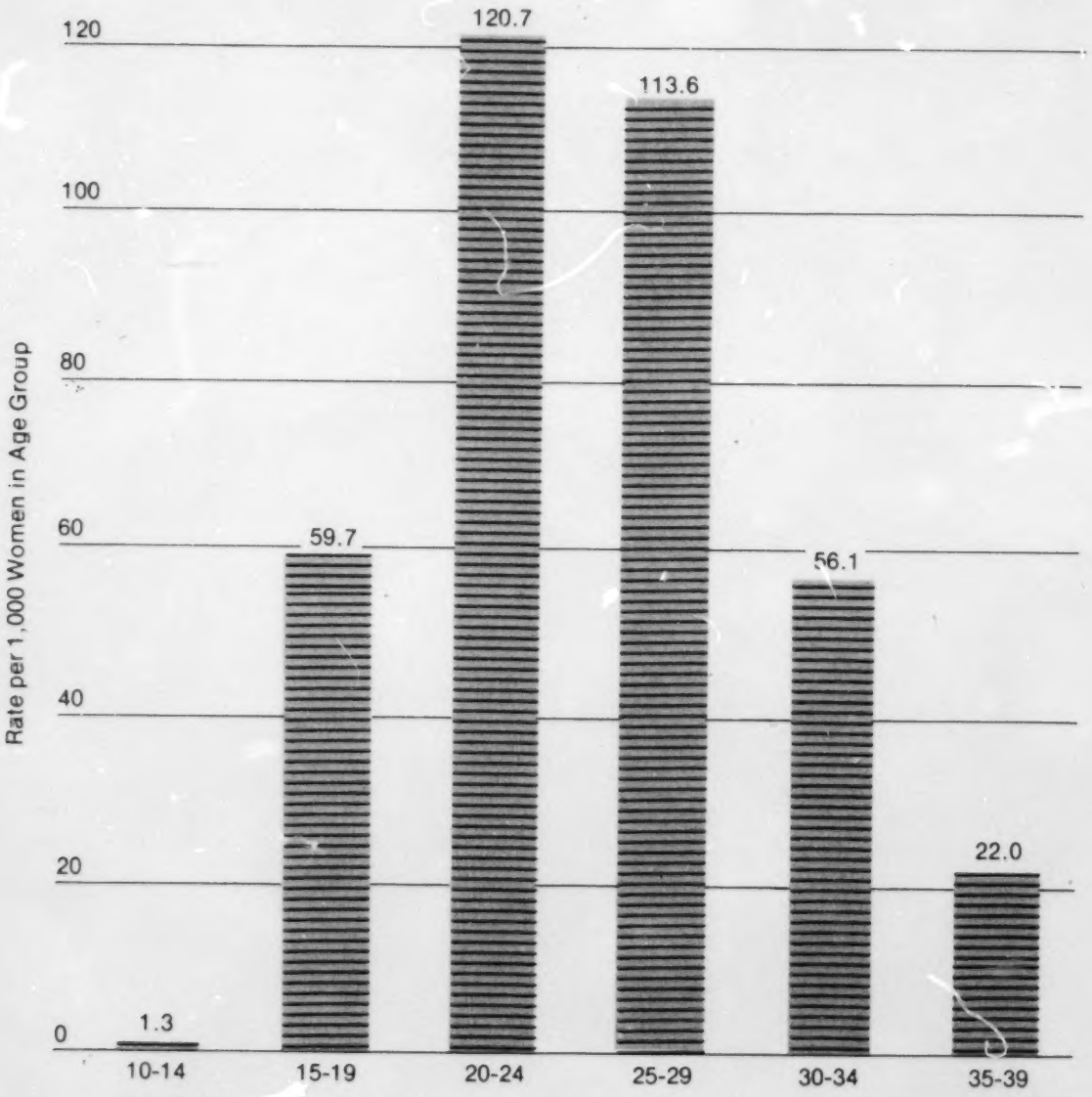
Reported Venereal Diseases Among 15-19 Year Olds: 1956-74



Note: These diseases are vastly underreported.

Source: Center for Disease Control

Birth Rates by Age of Mother: 1973



Source: National Center for Health Statistics

HEALTH NEEDS OF ADOLESCENTS

Susceptibility of adolescents to infections, accidents, and other ills does not differ widely from that of other members of their families. Because of their rapidly expanding physique and changing metabolic status, however, adolescents have some special health needs that are not shared with other age groups. (See table 3.)

Some Health Program Components for Adolescents

Primary Health Care

The teenager requires easy access to facilities where primary health care is available. It is important that every teenager make contact with a reliable health resource. He or she may need services, medications, and counseling associated with physical changes, as well as support in learning about the cause of a specific condition, the nature of the treatment, the prognosis, and ways to avoid a recurrence.

For instance, when a severe flareup of pustular acne occurs in a 16-year-old boy, it is unsightly, painful, and embarrassing. This patient needs reassurance almost as much as he needs medication. The physician should treat this teenager as an ally in a joint effort to control the problem, explaining its cause and its prevalence among adolescents. Together they should discuss the rationale for the choice of prescribed medications and how to use them.

When the acute phase has subsided, a full regime related to skin and scalp hygiene, diet, and exercise can be planned to prevent or reduce scar formation and cystic lesions. Encouraging information should be given about dermabrasive treatment and other cosmetic procedures that can minimize complications. The result for the adolescent should be not only dermatological improvement but restoration of self-confidence. (14)

Obesity is another common problem in teenagers of both sexes. Although no significant mortality or medical morbidity is attributable to obesity during the adolescent years, there are reasons for concern about overweight teenagers. The obesity acquired in youth is particularly resistant to treatment.

It has been shown that approximately 80 percent of obese youngsters remain overweight as adults. Excessive weight becomes an additional handicap for those who suffer from cardiovascular, pulmonary, or metabolic conditions.

There is a natural increase of body fat in late childhood and early adolescence. In girls, this deposition of fat continues until the 16th or 17th year when it starts to disappear. Boys, on the other hand, become leaner during the growth spurt and sexual maturation, and their body fat actually decreases in the late teens.

Being overweight causes difficulties for the adolescent in social and emotional adjustment. The obese teenager is self-conscious and often feels unacceptable to peers of either sex. This causes a withdrawal from activities and the young person is inclined to eat more high-calorie food to obtain solace from social exclusion, which may be real or imagined.

It is advisable to approach the management of obesity in adolescence through a combination program of moderate diet and exercise. Rigid restrictions of food and drastic weight reduction are to be discouraged because the rapid growth process at this time requires

high caloric intake. If dietary restriction is prolonged, there will be cessation of growth. (15)

A family history of obesity suggests eating patterns that are firmly entrenched. Psychological factors may be secondary rather than primary.

Motivation for losing weight is difficult to achieve. Group counseling and activities with other overweight teenagers that emphasize good grooming, watching the mirror as a slimmer silhouette emerges, food selection and preparation may be acceptable vehicles for therapy. Goals should not be overly ambitious; sometimes maintaining the same weight is a satisfactory target for an overweight teenager.

Additional health problems of the teen years include allergies, respiratory and other infections, psychosomatic conditions, accidents, menstrual disorders, diabetes, dental caries, emotional disorders, drug abuse, alcohol abuse, smoking, contraception, pregnancy, and venereal disease. Most of these conditions are likely to be accompanied by some emotional overlay that the physician or physician extender should be prepared to recognize and assess. (16)

Preventive Health Care

Preventive health care is the goal toward which all health programs should strive. Preventive care for teenagers includes regular physical examinations, maintenance of immunizations, and counseling on nutrition, sexuality, contraception, drug abuse, and other concerns. The encounter during a health breakdown or other contact should be used as an opportunity to make a complete health evaluation of the teenager. Then the process of educating the young person to become interested in the body and its functions should begin, as the adolescent is given information about his or her own health

Table 3.—Identification of health problems of youth (Survey of 15- to 21-year-olds in Sherbrooke, Quebec, Canada)

Health problems	Respondents with Health Problems*		
	Total and Percent (n=1,346)	Male (n=738)	Female (n=608)
Nervousness	393 29.2%	177 24.0%	216 35.0%
Dental	366 27.2%	205 27.8%	161 26.5%
Menstrual problems	135 10.0%	—	135 22.4%
Acne	246 18.3%	170 23.0%	76 12.5%
Health worries	121 9.0%	61 8.3%	60 10.9%
Headaches	120 8.9%	52 7.0%	68 11.2%
Obesity	79 5.9%	38 5.1%	41 6.7%
Venereal disease	10 0.7%	5 0.7%	5 0.8%
Other	104 7.7%	59 8.0%	45 7.4%

* Absolute and percent distribution by sex.

Source: Jack J. Sternlieb and Louis Munan, "A survey of health problems, practices, and needs of youth," Pediatrics, Feb. 1972.

status. Even after a specific condition has been corrected, the health program staff should keep in touch with the patient to make sure that he remains healthy. When a defect cannot be entirely corrected, a good health program may prevent the development of secondary handicapping conditions.

Young people often need informal support to adjust to normal adolescent reactions. The new physical appearance, sudden mood swings, and general ambivalence are changes that not only confuse the adolescent but harrass his parents. Lack of sensitivity to these adolescent manifestations may preclude understanding between the health professional and patient. By establishing a positive relationship with an adolescent, the physician, nurse, or other health worker may give confidence, promote a stronger self-image, and encourage continued use of the health facility.

Screening

Screening for certain prevalent conditions through specific tests that determine the presence or absence of pathology in healthy individuals may be a part of a preventive adolescent health program. For adolescents, screening should include tests for hypertension, kidney disease, sickle cell and other hemoglobinopathies, scoliosis, tuberculosis, visual defects, hearing loss, venereal disease, and abnormal cervical cytology. Such tests are given at ages where the yield of positive cases will be most productive and cost-effective.

The reason for screening should always be explained, so that young people understand the importance of preventive health services.

Health Education

Preventive health care will not be complete without a relevant health education program. This may take place in the school system or in association with a health care facility in the community. Group discussions and audiovisual materials on relevant topics have become effective tools for education, but the young person's individual contacts with health professionals oriented toward prevention are probably of greater value. A good use of waiting time at the clinic can be made through educational programs. They have the added advantage of making the medical contact a positive experience and thus encouraging teenagers to make return visits.

Involvement of parents in health education groups serves many useful purposes.

Physical Education

The importance of good physique, apart from athletic aptitude, has been played down in most U.S. schools. Rather than meeting the need of all students for regular physical exercise, most school efforts in training and coaching are directed to the achievement of excellence for the 5 percent who are athletes. These programs provide little more than spectator activity for the remaining 95 percent. Routine school exercise programs are of nominal value.

Emphasis on a graduated sports and exercise program in all schools would enable adolescents to reach their potential physical development and to establish practices that foster lifelong good health.

Conditions of Special Concern to Adolescents

The alleged vices of the teenage population have attracted much publicity. Sexual activity, substance dependency and emotional disorders, and various other forms of alienating behavior associated with this age group are of concern to parents, health practitioners, and teenagers alike.

"Conditions of special concern to adolescents" have been separated from other health needs to allow fuller consideration of these problems. However, in the actual practice of medicine, no such distinction should be made. It is essential that no discrimination be shown between serving a teenager's straightforward health needs and those involving social behavior. Staff members working with young people should view any call for services without differentiation, and should respond to the situation without prejudice or judgmental attitudes.

Services for medical illnesses should be integrated with social services, and the young person should not be made to feel inferior because of his physical or emotional state. Staff members can make clear to the recipient of

care that all his concerns are important, regardless of the nature of the problem. (17)

Sexual Activity

Sexual freedom in the seventies has brought a greater acceptance of human sexual expression, often accompanied by inadequate understanding of the implications and results. Society appears to have lost a sense of direction about the driving life force of sex. The concept that power, success, and popularity must be equated with sex has been exaggerated by television, movies, and novels. It is not surprising that young people are sometimes confused about their sexual roles and the appropriate direction for their sexual drives.

Studies by Kinsey, Christensen and Gregg, Hickey and Nass, Bell and Chaskes, and others have provided documentation on the sexual "revolution." Whether or not an actual revolution has occurred, sexual discussion and sexual activities are more open than in earlier decades. There is evidence that the first episode of coitus among girls is taking place at an earlier age, although there has probably been little change in the age for boys. (18)

The central health issue is not necessarily the incidence of sexual activity among teenagers, but its consequences—rising numbers of teenage pregnancies, VD, and abortions performed on very young girls. Under these circumstances, someone—health authorities, school administrators, parents, or church leaders—must provide guidance and basic sexual information for teenagers, particularly young teenagers, if the undesired pregnancies are to be prevented and VD is to be controlled. Just as important, educational guidance is essential to the development of a mature adult role and a responsible attitude toward sexual behavior.

Teenage Pregnancies

Two out of thirteen first births in the United States are to girls who are so young that they are biologically "at risk" in childbearing. In 1973, a total of 616,957 girls under 19 years of age gave birth. Of these, 604,096 were between 15 and 19 years of age and 12,861 were under 15 years of age. There were 299 second or later births among mothers under 15, and parity was not reported for 1,150 other mothers in this age group.

The 1973 birth rate was 59.7 per 1,000 for girls 15 to 19 and 1.3 per 1,000 for girls under 15. These rates reflect an 8 percent increase in the number of births to girls under 15 between 1972 and 1973, although all other age groups of women showed a decrease during this period. The birth rate for the 15- to 19-year-old group declined nearly 4 percent from 1972 to 1973.

In the United States, the average age of menarche is 12.5 years, and girls' average age for complete physical maturity is several years later. Girls are at increased risk biologically and emotionally if pregnancy occurs before they complete their own physical growth. (19)

Neonatal, postnatal, and infant mortality rates are much higher for infants born to very young mothers. Statistics showed that for infants of mothers under 15 years of age in New York City in 1968, mortality was 107.3 per 1,000 live births, compared with 21.5 per 1,000 live births in the 20- to 24-year-old age bracket. For infants of mothers under 15, 20 percent weighed less than 2,500 grams at birth compared to 9.7 percent of those born to the 20- to 24-year-old group. (See table 4.)

Studies show that pregnant adolescents have higher rates for toxemia, prolonged labor, premature delivery, pelvic disproportion, and cesarean section than more mature women, and therefore require more intensive maternity care.

Table 4.—Infant mortality in New York City, by age of mother: 1968

Age of mother	Live births	Infant deaths	Rate per 1000 live births
Under 15	438	47	107.3
15–17	6,334	185	29.2
18–19	12,376	355	28.7
20–24	48,575	1,046	21.5
25–29	41,767	761	18.2
30–34	20,399	415	20.3
35–39	9,410	207	22.0
Over 39	2,589	69	26.7
Not stated	32	197*	
TOTAL	141,920	3,282	23.1

* Includes 50 infants born outside New York City.

Source: New York City Department of Health.

Many pregnant girls are classified as high risk because of social situations that expose them to a wide range of additional health and mental health problems. Efforts to minimize these social conditions and to maintain educational continuity must also be considered in the management of teenage pregnancy. Ideally, suitable health care should be combined with academic programs to prevent the loss of a school year or permanent dropping out of school.

Available family planning services should be accepted and used by the sexually active teenage girl. If a test for pregnancy becomes necessary, the girl should be referred for family planning or prenatal care as indicated by the results. Some young women may wish to receive counseling about abortion services, depending on individual circumstances.

Venereal Disease

There has been a marked increase in venereal disease—evidence that the freedom from pregnancy provided by the pill is not accompanied by freedom from infection.

The incidence of gonorrhea has reached epidemic proportions among teenagers. This condition is usually reported by the male who is experiencing painful symptoms. However, "silent" gonorrhea in males has increased to 10 percent of reported cases, which indicates the need for screening in the sexually active male.

The frequent absence of primary symptoms in females allows the disease to go unnoticed until serious complications arise. An estimated 17 percent of women treated for gonorrhea initially present with salpingitis. The absence of a serological test for gonorrhea makes diagnosis in women impossible without a cervical smear and culture. (20)

Although the incidence of syphilis appears to have stabilized for the population at large, the incidence for adolescents continues to increase. The Treponema pallidum that is present in the United States is less sensitive to penicillin than that found in Europe, and therefore higher doses of penicillin are required for adequate treatment.

The increased incidence of other sexually transmitted diseases appears to be related to the increase in sexual activity among teenagers. Infections with Trichomonas vaginalis and Candida albicans are now very common. Although they are not usually considered as serious venereal diseases as syphilis and gonorrhea, these conditions cause discomfort and worry to many young people. They will not normally come to light except under specific examination or direct questioning, so it is important to screen for these infections in routine physical examinations of adolescents as well as in family planning and venereal disease programs.

The followup of contacts after diagnosis of a venereal disease requires open discussion with the adolescent who has a known infection. Usually, adolescents are eager to protect their friends from illness and willingly cooperate to prevent further spread of their infection if their own identities are kept confidential.

Drugs

The use of psychoactive drugs has taken on a symbolic significance in the youth culture. Many explanations for the use of drugs have been given by teenagers, from naive experimentation to escapism, open rebellion against society, and pursuit of new meanings of human existence. The legal status of drug use is under debate in the United States, and a few States modified their laws in the 1970s. The long-term medical effects of marijuana have not been conclusively established. (21)

Drug usage may be increasing among very young adolescents. While drugs are still widely used by older adolescents, there is now evidence of a decrease in the use of hard drugs. Alcohol appears to be replacing hard drugs in many areas, partly because alcohol is more readily available and less expensive. Drs. Iris Litt and Michael Cohen of Montefiore Hospital in New York City summarize their findings about this reversal of the trend in these words:

"Although these data would suggest a distinct decrease in the misuse of opiates by urban adolescents, the continuing abuse of other agents by this population remains a major health problem." (22)

Rehabilitation of drug addicts is expensive, and there is a high rate of recidivism. A few facilities conduct programs specifically for adolescents, with varying results.

Preventive programs developed with the cooperation of young people themselves appear to be the most hopeful avenue of combatting drug abuse and addiction.

Alcohol

Dr. Morris E. Chafetz, former director of the National Institute on Alcohol Abuse and Alcoholism, has called alcohol the most abused drug in the United States in the mid-1970s. In an article entitled "Adolescent Drinking and Parental Responsibility," Dr. Chafetz points out that alcohol is available in nearly every home in America.

The human and social destruction related to alcohol abuse includes 9 million alcoholic Americans, half of the nation's traffic fatalities, half of the homicides, one-third of the suicides, and 2 million arrests for public drunkenness each year.

"All of the signs and statistics over the past couple of years have pointed to the fact that the switch is on among young people—from a wide range of other drugs to the most devastating drug of all: alcohol," Dr. Chafetz reported. He cited many examples:

"Young people are being arrested for public drunkenness in large numbers and at earlier ages. . . . Alcoholics Anonymous groups for teenagers are springing up around the country where there were none before 1970. . . . The Los Angeles Times reports an 11-year-old boy celebrating his first birthday with AA—one year of sobriety. . . . Pop wine sales to youthful drinkers have increased 10-fold in the past 4 years. . . . And alcoholism among children between 9 and 12 years old is becoming more and more common."(23)

The Second Special Report on Alcohol and Health to Congress from the Department of Health, Education, and Welfare states:

"Among seventh-graders, 63 percent of the boys and 54 percent of the girls have at least tried alcoholic beverages. The percentage of students who have used alcohol increases with each higher grade to the point where, among high school seniors, 93 percent of the boys and 87 percent of the girls have had a drink. In placing these figures in perspective, the near universal use of alcohol within the teenage population is not nearly as troubling as the fact that it has been accompanied by a high rate of alcohol abuse.

"Nearly one out of every seven male high school seniors reports getting drunk at least once a week. Thirty-six percent of all high school students report getting drunk at least four times a year. . . . a frequency that some experts believe is indicative of a developing alcohol problem."

The American public has not given this trend the attention it deserves. Now it demands urgent action.

Alcohol usage and some drug abuse are related in patterns of use and pharmacological action. Alcohol, barbiturates, and tranquilizers are all central nervous system depressants. However, the legality of alcohol and social attitudes towards its consumption differ from the prevailing mood of society toward drugs. Many parents have completely accepted drinking by their teenagers as a safe social outlet, in harmony with their own methods of relaxation or of escape from pressures of daily life.

Mental Health

Disorders of mental health appear to be increasing among young people. A diagnostic analysis of patients attending adolescent clinics shows that many complaints have an emotional etiology. Mental hospitals are admitting more young people, perhaps partly as a reflection of the absence of family care. Depression, impulse disorders, and acting-out behavior are the predominant characteristics of adolescents who are emotionally disturbed.

The most dramatic indicator of emotional instability and unhappiness is the mounting incidence of suicide. It is the third leading cause of death for older adolescents. According to the National Center for Health Statistics, the suicide rate for adolescent white males from 15 to 24 years of age climbed from 4.0 per 100,000 in 1955 to 9.0 per 100,000 in 1969 to 11.4 per 100,000 in 1973. Preventive mental health programs, including early identification and surveillance of those most likely to be susceptible to psychological and socio-cultural stresses, are needed to reduce morbidity and mortality rates.(24)

A medical history should always include questions that will provide information about

an adolescent's emotional status. When elation is followed by a depression that leads to withdrawal, inactivity, and appetite and bowel changes, the degree and frequency of these mood swings should always be seriously evaluated. It is important to find out any family history of mental illness, alcoholism, or drug dependence.

The quality of a teenager's relationship to family, peers, and school personnel may indicate early signs of difficulty in assuming normal interpersonal relationships.

The way in which the adolescent spends his or her free time, including recreational interests, will provide further information about personality. Preference for group or solitary pursuits and the role played in athletics, drama, dancing, music, and crafts should be noted.

Smoking

Efforts to discourage young people from smoking cigarettes have not been very successful over the years, and the subject remains a challenge in the field of public health. After decreasing for several years, sales of cigarettes in the United States began to increase in 1971.

Children below the eighth grade level in some communities are now smoking cigarettes. According to "Profiles on Children," 14.5 percent of junior high school students admitted to smoking with some regularity in 1969. (25)

A report by the National Clearinghouse for Smoking and Health for 1974 shows that 15.3 percent of girls 12 to 18 years of age and 15.8 percent of boys in this age group were current regular smokers. At ages 12 to 14, 4.9 percent of girls and 4.2 percent of boys said they smoked regularly, but these figures increased to 20.2 percent of girls and 18.0 percent of boys at ages 15 and 16, and 25.9 percent of girls and 31.0 percent of boys at ages 17 and 18.

The Surgeon General's annual reports on the health consequences of smoking have documented the fact that tars from cigarettes are carcinogenic. Smoking not only increases the risk of cancer of the lung, esophagus, larynx, and bladder, but also is associated with coronary artery disease, and other diseases.

Tarlike substances cause epithelial damage to the air sacs in the lung, loss of alveolar elasticity, rupture of the alveoli, and then inevitably, emphysema. Although it takes 10 to 15 years of heavy smoking to reach this point, a teenager who has an intractable habit at 14 could be a respiratory cripple before age 30.

Cigarette smoke inhalation during pregnancy has been shown to contribute to low birth weight in babies, although certain studies suggest that this is due to the smoker not the smoking. There is little to show that the habit of smoking is being discouraged among pregnant teenage girls. (26)

Private and Government agencies have been promoting educational methods to reduce smoking among people of all ages and have also been supporting research on the effects of smoking for years. These include the American Lung Association, National Cancer Society, schools, medical and dental societies, and many other educational and health-related organizations. Within the Department of Health, Education, and Welfare, research is conducted by the National Cancer Institute and the National Heart and Lung Institute; educational programs by the Center for Disease Control; data gathering by the Office of the Surgeon General, Public Health Service; and coordination of information by the National Clearinghouse on Smoking and Health.

In the spring of 1975, the American Academy of Pediatrics issued a warning about the dangers of cigarette smoking by children and teenagers. The problem is enormous: every day 3,200 young people aged 12 to 18 take up smoking. The habits of parents, older brothers, and older sisters seem to influence a youngster's decision to smoke or not to smoke. The Academy found that although teenagers are aware of the health hazards inherent in cigarette smoking, most believe it could not develop into a health problem for them until they are "well advanced in years." The Academy recommends a new look at preventive measures; an educational program to bring information about the health problems associated with smoking to children before they reach puberty, reinforced with efforts to reach parents; and the commitment of the pediatrician or physician to include information and counseling about smoking in the total approach to preventive health care.

Runaways

Adolescents who run away from home put an increasing burden on families and official agencies. A runaway is by definition any young person less than 17 years of age who is away from home without permission. It is nearly impossible to count the number of runaways because these children avoid situations where they might be identified, and often remain in hiding. It is certain that their numbers are increasing. Estimates of runaways in the United States range from 1 million to 5 million youths, and more than 50 percent are girls.

Emergency shelters are needed for the 15,000 runaways who return to society seeking help each week. Even on a short-term basis, jails are not acceptable as holding facilities for these young people. It is illegal for an individual to provide shelter for a runaway in most States. Return to the teenager's home frequently is unrealistic, and some form of foster care may be a better alternative.

Dr. Helm Stierlin of the National Institute of Mental Health summarized the problem of runaways in these words:

"Modern adolescent runaways reflect varying family dynamics, as revealed through long-term family therapy and observation. These family dynamics can be conceptualized as disturbances in transactional modes. Transactional modes operate as the covert organizing background to the more overt and specific child-parent interactions. The modes of binding, delegating and expelling are defined. Depending on which mode is dominant, runaways and their families need to be viewed and treated differently.'(27)

"A Study of Wandering Youth," published in 1973 by the Council of Planning Affiliates in Seattle, indicates that the average age of runaways in the State of Washington is 15, with 50 percent of the total between 11 and 14. This study points out that parents, frequently frantic in their attempts to recover their offspring, can expect little assistance from police departments swamped by immense pending files of similar cases. Like nearly all migrant groups, these young nomads tend to follow certain established trails, with Seattle a favorite stopover. The motivation for change and movement has little to do with the search for employment or becoming self-sufficient. (28) The older adolescents are sometimes seeking an idealized version of communal existence.

Dr. Robert Deisher, professor of pediatrics at the University of Washington in Seattle, has analyzed some of the available data on transient youth. He finds many reasons for running away. Some teenagers leave home to break ties with the establishment, or to make purposeful exploration for the future. Others run away because of problems they want to keep secret, such as pregnancy or a drug habit. For the majority, family disruption or other domestic trauma precipitates the act of departure.

Some of these youngsters drift in and out of their own homes and never really lose touch. Others, psychologically damaged, wander aimlessly. Some survive by making it on the streets. A few teenagers, unable to cope, become progressively involved in crime.

The needs of runaways who are found by police or others are in this order of priority: food, housing, clothing, employment, and medical care.

Dr. Deisher sees the physician's role in helping these adolescents as one of being aware of precipitating factors in family life and acting to mitigate their effect before they become irreversible. (29)

A National Telephone Hotline for runaway youth was established in 1974 under a $100,000 grant to Metro-Help, Inc., of Chicago. Supported by the Office of Youth Development in the Office of Human Development, HEW, the hotline demonstrates the feasibility of providing a toll-free 24-hour telephone service as a neutral channel of communication between runaway youth and their parents. The toll-free number is 800 621-4000.

The discovery of multiple murders of adolescent boys in Texas in 1973 gave nationwide impetus to earlier attempts to solve the problem of runaways. The Runaway Youth Bill had been introduced in the U.S. Senate in 1971. It was designed to strengthen interstate reporting services for parents of runaway children; conduct research on the size of the runaway youth population; and provide for the establishment, maintenance, and operation of temporary housing and counseling services for transient youth.

After several delays, the bill was incorporated as title III, the Runaway Act, in the Juvenile Justice Act (Public Law 93-415), which was signed by President Gerald Ford on September 7, 1974.

Title III authorizes five separate units within the Department of Health, Education, and Welfare to work on behalf of runaways, under the leadership of the Office of Youth Development. These units awarded the following grants and contracts in FY 1975:

National Institute of Mental Health (NIMH): $1,622,020 for 34 short-term demonstration projects to help runaways.

Community Services Administration: $281,895 for 2 grants—to develop a national training program for professionals who deal with runaways and to develop a typology of runaway youth.

Office of Planning and Evaluation: $72,000 to test the feasibility of a national study to determine the actual number of youth who run away, who they are, and where they come from.

Office of Youth Development: $60,000 to conduct three regional conferences for law enforcement officials, parents of runaways, and professional youth workers who will help determine the scope of future Federal programs to deal with runaways.

Office of General Counsel: $30,000 for a national study of legal status of runway youth in 53 jurisdictions.

School Achievement

In adolescence many young people perform poorly in school. Some are well endowed intellectually, but have been turned off by the regimentation of school or what they perceive as irrelevance of the curriculum.

Many schools have become large and impersonal, particularly in metropolitan and urban areas. Desegregation and busing have been accepted in some communities, but have disrupted both blacks and whites by introducing issues that distract students from their educational pursuits. The system based on cognitive achievement has produced an increasing number of illiterates and delinquents. (31)

The gifted child is still stimulated by a dedicated teacher, while those with average or below average skills are often left to struggle as best they can. Children who have difficulty in school performance as teenagers may have had trouble in keeping up with the rest of the class since kindergarten, but it is the pressure of adolescence that brings their problems to the surface. Underachievers may have specific learning disabilities, minimal brain damage, or unresolved emotional conflicts that schools are unable to alleviate because of limited budgets, teachers with full classroom schedules, and lack of trained specialists. Other young people believe that they are being programmed into molds where their expectations will not be realized by society. For example, American Indians have a high dropout rate in high school, often after performing well in early years.

Adolescence is a time for vocational choices. The teenager should be encouraged to function fully to the level of his own potential. Sometimes both teenagers and their parents need help in the realization that their plans for college or professional training are inappropriate. Things may go better after parents stop trying to push their teenager to unrealistic academic levels, and the teenager himself rechannels his efforts toward goals that he can accomplish.

Handicapped Adolescents

A handicapped adolescent is burdened with a double load: his perception of his handicap is intensified as he faces the problems of adolescence. Subconsciously wishing to compete with others in his age group, he becomes more acutely aware of the differences between himself and his normal peers.

The nature of the original handicap may be orthopedic, cardiac, neurological, or cosmetic. By the time he reaches his teens, the handicapped youngster has learned to live within his limitations and may have a fairly normal life except for wearing a hearing aid, brace, or glasses, or avoiding extreme physical activity. To him at this time the handicap is seldom of primary importance. Instead, he is concerned with the problem that makes him different subjectively, when his intense desire is to be the same as everyone else and meet peer standards.

Children with severe handicaps, who two decades ago would have died in early life, are

now surviving into adulthood. For them, a whole new range of problems and adjustments emerges around vocational training, sexual development, appropriateness of marriage and genetic implications.

Response to family planning education programs for deaf and blind adolescents indicates intense interest in dealing with their special problems.

This time of painful confusion for the handicapped teenager was recognized by a medical student from Rutgers Medical School:

"My first assignment on the adolescent floor of Long Island Jewish-Hillside Medical Center .... was a 19-year-old white female with cystic fibrosis, coming in this time with an exacerbation of her disease and with one of the most common complications of her primary illness, intestinal obstruction. The medical treatment instituted in this case was not different from that used for cases of intestinal obstruction or chronic obstructive pulmonary disease. The verbal management, however, for this particular patient had to be altered drastically.

"This 19-year-old appeared to be somewhere between the [maturational] ages of 10 and 12, with no apparent development of secondary sexual characteristics. I spent a great deal of time with her in an attempt to win her confidence and I learned that her major problem was not cystic fibrosis nor multiple hospital admissions; it was in truth the fact she was 19 years old and had not yet menstruated." (30)

The difficulties encountered by youngsters with mental retardation are even more challenging than those stemming from a physical handicap. For example, a workshop for parents and others concerned with retarded adolescents was held in Phoenix, Arizona, in October 1973. Some findings were reported by the Phoenix Gazette:

"Adolescence is a pretty rough time in any child's life . . . and for the retarded child, it can be a double whammy. It's a growing period, a time of rapid physical changes, many of which the retarded youngster doesn't understand. It's also a stage when most children begin to socialize more, attain individual achievement, and begin thinking about careers. For a child who realizes his chances for personal happiness are extremely limited, adolescence may be traumatizing.

"In adolescence the [retarded] youngster realizes he can't compete with normal peers, that he's 15 or 16 and he's in a special group at school because he's different. You sit down and listen to these kids . . . the content of their conversations together centers on their unhappiness, their feeling they're different. It's heartbreaking. Some of these kids can think things out pretty well, though they're functioning on the retarded level.

"What we need to realize is that a retarded child is more like a normal child than he is different. . . . He is a human being with the same emotions and the same physical development. He will reflect the treatment he gets as well as his parents' philosophy of life, whether it is permissive or strict. He can't be allowed to rule the roost, having no demands placed on him at all. He can't be made the scapegoat, either."

Sexual development in retarded adolescents is sometimes a surprise to parents. Dr. Margaret Tenbrinck, director of the Phoenix Child Evaluation Center, points out: "Parents somehow assume retarded children will remain as children, physically as well as mentally. But the normal physiological changes of adolescence do take place, and retarded teenagers begin to have feelings toward the opposite sex.

"They will have questions but won't know how to ask them, so parents need to anticipate their feelings and explain what's happening. Girls, particularly, will need to be protected and given close parental guidance so they are not taken advantage of. Retarded children are easily led and will do many things to gain acceptance."

Adolescent Morbidity and Mortality

Adolescents are considered to be a healthy population group. By this time congenital anomalies have been detected and treated. Immunity—passive or acquired—has been developed against infectious diseases. Degenerative processes have not begun to show their effects. Nevertheless, adolescents do die.

Accidents are the leading cause of death for the 15- to 24-year-old age group. In 1972, the fatality rate for all accidents was 68.1 per 100,000 population in this group, or 53 percent of all deaths. The death rate from all causes

was 127.7 per 100,000. Other major causes of death and the rates per 100,000 in the 15- to 24-year-old group include homicide—13.5; suicide—10.2; malignancies—7.7; and cardiovascular diseases—4.6. (32)

The motor vehicle accident death rate for the 15 to 24 age group was 47.4 per 100,000 population in 1972, and the death rate for all other accidents was 20.7 per 100,000 population.

The accident toll has not been confined to automobiles, however.

Firearm deaths have increased during the 1960s and 1970s, but laws to control purchase and possession of guns have not been enacted. Systems of rewards for handing over firearms to local authorities have, at this writing, had only limited success.

Deaths related to private aircraft have increased. Many teenagers drive or ride snowmobiles and minibikes, which have been involved in a number of fatal accidents. Other dangerous hobbies of young people include sky diving, motorcycling, and motorboating.

These trends persist in spite of a substantial increase in both money and manpower devoted to reducing accidents in recent years. A consumer movement has evolved to detect dangerous products and eliminate them from sales channels. The Federal Government has assumed an active role in enforcing safety measures. Studies suggest that accident rates have increased despite these counter-measures because the action has for the most part been post mortem or post factum rather than preventive.

It is likely that high accident rates will continue. In fact, the spectrum of home and recreational accidents may broaden because some elements of the American culture continue to stress risk-taking and aggressive competition as desirable behavior.

Violence has become increasingly evident in our culture, with powerful implications for the accident rate. Continued exposure to violence in films and on TV produces an increase of aggressive behavior in play and personal interchange.

Adolescents die from a number of other causes such as infectious hepatitis, overdoses and other complications of drug abuse, or overwhelming infections superimposed upon a chronic disease. Such teenagers are usually in a state of marginal nutrition, and profound viral or bacterial infection can lead to quick and unexpected death.

Unusual conditions that occasionally occur in adolescence may be fatal if diagnosis and treatment are delayed. For instance, cases of tropical sprue were reported in 1974 among young people who traveled the road to Katmandu. Symptoms tend to be non-specific and may resemble a traveler's upset stomach. This disease is extremely difficult to diagnose, and a definitive answer may be obtained only by sigmoidoscopy and biopsy. (33)

Tuberculosis and other preventable diseases may increase in the future because of voluntary crowding in living arrangements and lack of personal hygiene.

SERVICES FOR ADOLESCENTS

Principles and Their Implementation

Technological and socio-psychological knowledge has increased rapidly, but the systems through which patients may benefit from these advances have fallen far behind. Although health service delivery and quality of care are being constantly studied and general concepts have been formulated to suggest the vital elements of successful health care delivery, no coordinated approach for widespread implementation has developed.

This is particularly true in adolescent health care. A 1972 survey of 43 clinics that treat adolescent patients pinpoints the dilemma. The clinics were connected with private organizations, medical schools, teaching hospitals, and governmental agencies; none was able or willing to identify the single most effective method for the delivery of health services to adolescents.

Traditional and innovative models of adolescent health care delivery are being reviewed at present. From these, successful approaches can be extracted and consolidated to form viable programs.

In a review of available methods of health care delivery for adolescents, it appears that principles should be developed around five major areas of concern:

1. The Clinical Environment
2. Staffing
3. Quality of Care
4. Privacy and Confidentiality
5. Barriers to Care

The Clinical Environment

This covers such points as the accessibility of services, location of the health unit, provision of privacy without isolation, and the age specificity of the patient load.

Services for teenagers should be provided on an age-specific basis, in areas specially designated for them and not used by young children and adults. The adolescent clinics should not be isolated from other areas, however, and the necessary diagnostic and treatment facilities should be accessible. An elaborate physical plant is not necessary, but a waiting lounge that affords privacy is appreciated especially if it reflects teens' taste in decor, reading material, and music. There should be a relaxed and friendly atmosphere where the teenager feels both welcome and respected. The waiting area may serve as useful space for rap sessions, health education activities such as movies, and presentations.

Practical considerations such as scheduling clinic hours after school, in the evening, or on weekends may influence the adolescent's willingness to utilize services.

Neighborhood clinics, set up in many cities as satellites to a hospital, have eliminated some transportation difficulties, and brought services closer to where people live. Such clinics provide an excellent opportunity for physicians in training to leave the institutional setting and see how people live in a community.

In the past, services for teenagers were available only in traditional hospital settings. These have not been generally acceptable to an essentially healthy group seeking preventive or primary care.

Staffing

Staffing patterns in units caring for adolescents have undergone considerable changes in recent years. The advantages of a multidisciplinary

team have been demonstrated. When a physician is assisted by a nurse, a social worker, and a nutritionist, he is relieved of some routine patient counseling and has more time for patients with unusually complex problems. The program becomes greatly enriched when there is team participation. Involvement of visiting psychiatrists and psychologists enhances the program by helping team members understand the normal psychological development of adolescents and by providing consultation in the management of adolescents who have particularly severe problems.

A full range of pediatric and adult medical specialists is usually available at a backup facility for consultation and they should be fully utilized. A gynecologist who will see patients for contraceptive counseling and gynecological disorders is now commonly a part-time member of the adolescent unit team and provides an alternative to specialty clinic referrals. The team approach of a multidisciplinary staff gives a broadened view of the teenager's needs. Community aides who work under the supervision of the professional staff may be invaluable in filling the communication gap between providers and teenage users of care. (34)

Interdisciplinary team meetings for selected case reviews provide an opportunity to consider a teenager plus his family from various points of view. Decisions reached through this collaborative approach may be more realistic. When referrals must be made to another clinic or agency, a staff member should serve as advocate for the patient and be responsible for followup action. The teenager requires one home base for health care, and information on all other services and referrals should flow back to that focal point for consolidation and future planning.

The attitudes of every member of the professional and support staff have a marked effect on the adolescent's response to services. Individuals working with young people should be able to relate easily and from a nonjudgmental viewpoint. An adequate orientation to the developmental aspects of growing up and inservice education can be most helpful. Teenagers say that the professional discipline of the helping person does not matter, but that the personality and attitudes are highly important. A holistic approach to care of the teenager is indicated; attention to emotional and social needs is no less important than attention to biological needs. (35)

Quality of Care

Young people deserve the best in health services. Care offered in an adolescent facility should meet all standards of the parent institution. When funds are limited, there may be a temptation to cut corners, which results in second-rate services.

There has been much lip service paid to the planning of continuity, completeness, and comprehensiveness of health care, but these qualities are too often missing in actual delivery programs for teenagers. Yet they are directly related to efforts to maintain high quality services. It has been demonstrated that comprehensive care for teenagers, given on a continuum, reduces the number of episodic illnesses, hospitalizations, and lost school days. Such care may also cost less.

Ideally, care should be comprehensive in the range of services offered. The phases of care include outreach, evaluation, treatment of defects, rehabilitation if necessary, and finally the maintenance of patients in a state of continued health. These concepts may be implemented by a care management plan for each individual, measuring progress by means of the benchmarks used in maintaining problem-oriented records.

The routine inclusion in teenage programs of dental and nutritional assessment and treatment has helped improve the health status of youngsters. Education about food values and demonstrations in the planning, budgeting, purchasing and preparation of balanced meals is essential.

The initial medical history probably remains the most important phase of the entire health process. Regardless of the nature of the presenting symptom, the practitioner has a responsibility to determine whether this adolescent is at ease with himself, whether his life is going smoothly, or whether he is confused and troubled. Developing a therapeutic relationship with the physician, nurse, or other health worker may be of great value to the teenager. If the history is taken in an insen-

sitive or mechanical way, the adolescent may be turned off to such an extent that he will not return.(36)

Parents who are present may provide some of the medical history, but the health professional should always spend time alone with the adolescent. All teenage patients should be reassured as to the confidentiality of their statements, and the history taker should adhere scrupulously to every promise made.

Some assessment of an adolescent's perception of self should be obtained, and relationships with family members, peers, school personnel, and the community explored. Predominant moods are of importance as is school performance. Questions should be open ended. On the first encounter the teenager should not be pushed to discuss intimate matters before he has built up some rapport with the history taker.

Information about sexuality should be elicited with tact and consideration for the teenager's feelings. Sometimes a questionnaire that the teenager completes by herself or himself and then reviews with the practitioner is useful in obtaining detailed personal information. Issues about the purely physical aspects of menstruation, evidence of VD, and family planning methods may generally be raised without undue reticence. However, these topics should be placed in the wider context of human relationships, and it is here that the practitioner should convey respect for and understanding of the teenager. Recognition of the adolescent's desire for human closeness beginning with dating and leading to more specific sexual activity is likely to be the best approach. A purely clinical interrogation when the teenager has not mentioned a problem is likely to be misunderstood and resented.

Physical examinations carry a special significance for most teenagers, who are unusually aware of their developing bodies. Procedures should be described and discussed and a reason should be given for each one before they are performed. For example, a pelvic examination can be particularly traumatic for the teenage girl. The girl or boy should be permitted to state preference about the sex of the examiner and the presence of a chaperone.

The followup of missed appointments reflects the interest of the clinic staff as well as their desire to provide good care. This activity should not give the impression of punitive surveillance, but one of positive participation in each individual's health status.

When teenagers have adjustment or emotional problems, particularly within the home, a short series of counseling sessions with an interested staff member may be highly effective. Medical students and residents have been able to play this role successfully when given adequate supervision from a more experienced staff member. This procedure provides new responsibility for the trainee and helps to stretch the available manpower, in addition to helping the teenager. There are many patients for whom this kind of therapy would not be appropriate, however.

Privacy and Confidentiality

Policies should be developed to preserve the integrity of adolescent rights to personal dignity. It is advisable to set definite guidelines concerning the involvement of parents during the provision of care to adolescents.

Adolescents should be allowed—but not forced—to accept the responsibility for their own health care. This implies the right to give informed consent to have private visits with their own physicians and to preserve the confidentiality of their own medical records.

However, when teenagers have not reached this degree of emancipation, some involvement of parents is acceptable and desirable.

At a time of crisis, parents should be given a chance to offer support to their children, regardless of age and prior strained relationships. Where distance or bad feelings present unsurmountable barriers, other ways of providing support must be found by the health care team.

Many adolescents are particularly eager for assurance of confidentiality and even anonymity when their problems lie in socially sensitive areas. The requirement of parental consent has severely constrained outreach efforts.

A survey of adolescent clinics found that 77 percent of respondents do not disclose patient identity to anyone outside the clinic, and 51 percent require parental consent for treatment. Sixty-seven percent of children's hospitals that responded require such parental consent.

Staff should have definite policies to follow concerning privacy and confidentiality, within the limits of existing State laws and regulations. When situations arise that are not clear-cut, they should be fully discussed with the adolescent, so at all times he feels that the staff have his best interest at heart. The pros and cons of parental involvement is a controversial issue, and staff should be given opportunities to explore its implications among themselves.

Barriers to Care

Requirements relating to ability to pay, parental consent, and other administrative red tape should be kept to a minimum. These factors are the greatest deterrents to an adolescent seeking health care.

The legal rights of minors present a complex and continually evolving picture. In a large measure, children have been deprived of legal rights under a system where adults, institutions, and courts assume that their acts on behalf of the minor will be in his or her best interest, while giving the young person virtually no voice at all. There has been little recognition that the acquisition of maturity is a developmental process throughout childhood and adolescence, and that young people have substantial capacity to participate constructively in decisions affecting their lives long before they reach 18 or 21.

Dr. Adele D. Hofmann, of Bellevue Hospital, New York City, has described the first step in extending legal rights to adolescents as being the development of protective statutes and codes. She lists a second step as the court decisions in the 1960s and 1970s that affirm the constitutional rights of minors.

There has been vigorous action to afford minors adult rights in matters of medical care, Dr. Hofmann has pointed out. Since 1967 almost every State has enacted legislation enabling specific groups of minors to consent to some or all of their own health care. The trend to expand the scope of such statutes seems to be accelerating. These laws, which have arisen in part out of the recognition that many adolescents have the capacity for making a valid informed consent, are comparable to the common law exception for emancipated minors. (37)

Health Delivery Models

It may be significant that an informal analysis made in the fall of 1974 of all bills then pending for national health insurance showed only haphazard coverage for children over 6 years of age and even more nebulous coverage after age 16.

This observation is indicative of the situation that finds both private and public sectors of health delivery systems assuming some responsibility for the health care of adolescents, without the necessary interfaces to achieve a cohesive program. It is not realistic to suppose that 40 million teenagers can ever be absorbed into one special system of health care, however. Perhaps the best approach is for existing systems and those who operate within them to adapt their present facilities to incorporate adolescents with an age-oriented approach. There is nothing to prevent the provision of good, comprehensive care for adolescents in every type of program, in spite of handicaps such as lack of funds and space.

Private Physicians

The vast majority of adolescents whose families can afford to pay for their medical care or whose families have medical insurance coverage receive services from a private physician. This may be a pediatrician, a physician specializing in adolescent medicine, an internist, a general practitioner, or a family practice specialist.

The older the adolescent grows, the more likely his health care will be crisis oriented. For the teenager who can afford the private practitioner, the treatment is generally of good quality but may be fragmented and one-dimensional. Certain elements may be neglected because of lack of time or facilities. The adolescent may be referred to other medical specialists such as the ophthalmologist or the gynecologist, but rarely to a nutritionist or social worker.

Hospital Outpatient Departments

Less fortunate is the youth from a home without medical insurance coverage. When he is ill or troubled, the hospital emergency room or

Table 5.—Health problems most often identified among adolescent patients at Montefiore Hospital and Medical Center

Primary problems of adolescence	Problems made worse by adolescence	Problems with origin during adolescence
Scoliosis	Tuberculosis	Obesity
Slipped epiphysis	Automotive injuries	Alcoholism
Acne	Unwed pregnancy	Duodenal ulcer
Sports injuries	Suicide	Hypercholesterolemia
Mononucleosis	Diabetes	Labile hypertension
Body image	Inflammatory bowel disease	Irritable colon syndrome
Drug abuse	Menstrual dysfunction	Migraine
Venereal disease	Dental caries	Marital conflicts
Goiter	Abortion	
Sexual dysfunction	Gynecomastia	
Delinquency	Mental retardation	
Tumors	Dying	
Anorexia nervosa		
Hepatitis		
Primary amenorrhea		
School-learning problems		

Adapted from Michael I. Cohen, Iris F. Litt, et al., "Health care for adolescents in a traditional medical setting." Youth, Health and Social Systems Symposium. Washington, D.C., April 1974.

outpatient department may be this adolescent's only resource. If his condition is not critical, he has the lowest priority for care. Most hospital departments do not have staff or facilities to provide privacy to the teenager even when he is giving an intimate history. The emergency room staff, oriented toward life-saving measures, have scant time or patience for someone who does not know why he has come, except that he "just doesn't feel good."

Some large city hospitals have opened medical walk-in clinics that provide excellent triage for such teenagers, particularly when staffed by medical or pediatric fellows with 3 or 4 years of training and experience. Unfortunately, many of these clinics are not open at night and on weekends when many teenagers seek medical care.

Traditional Medical Center

The program offered by the Division of Adolescent Medicine in the Department of Pediatrics at the Montefiore Hospital and Medical Center of the Albert Einstein College of Medicine in New York City illustrates some ways in which traditional hospital-based units may reach out into the community.

The Montefiore program began as a 20-bed medical-surgical gynecological unit, with 750 admissions a year. By 1975 it had become a 36-bed unit with 1,600 admissions a year. Incorporated into the physical plant are a student library, a day room, a photographic laboratory, a working kitchen, a high school classroom and a variety of rooms for physicians, social workers, psychiatrists, and other professional staff. For the first 6 years, 35 to 40 percent of all admissions were for chronic illnesses.

Outreach activities began when an ambulatory program that provided long-term outpatient care gradually developed into a walk-in service for the management of acute episodic illnesses of youth. Records reveal a constant increase in the number of ambulatory patients cared for. There were 400 visits in the first year, and 2,500 scheduled visits plus 1,800 emergency walk-in visits in the sixth year. (See table 5.)

According to Dr. Michael Cohen, the Montefiore program director, comprehensive health services are provided in conformity with a broad interpretation of the process of adolescent development. Training of health professionals to work in youth services and investigation of pathophysiological states are carried out concomitantly.

In 1968 Montefiore expanded its services to

administer the primary health delivery program at New York City's temporary youth detention facility. About 5,000 teenagers are remanded annually to this Juvenile Center by the Family Court. Health screening, a sick call program, medication distribution, a speciality clinic program, and a 15-bed infirmary are included in the program.

A children and youth clinic in the southwest Bronx had a poor record for attracting young people. After the Montefiore staff assumed responsibility, 1,300 new teenage patients were enrolled. The health services utilization rate for the next year of the clinic's operation was 4,000 patient visits.

The Montefiore program has affiliated with local schools in the north central Bronx and offers services that include health screening activities; triage to the hospital-based Division of Adolescent Medicine; and informal sessions taught by health professionals for students, parents, and teachers. Because high schools in the area have a 40-percent truancy rate, the Montefiore staff has developed a mini-school for high school dropouts with major medical-psycho-social and remedial educational components.

The Barnard College Health Service affiliation was set up to reach the older upwardly mobile teenager in the college setting. Post-doctoral fellows of the Montefiore program rotate through the service on a regular basis.

As consultant to the Job Corps of the U.S. Department of Labor, the program staff is studying the older, underemployed, poorly educated adolescent who has very special health needs.

The Montefiore Hospital adolescent service, like many others, has gone far beyond the confines of the parent institution and has had a marked degree of success in reaching the surrounding community. (38)

HEW Programs

Most of the Federal Government's programs that potentially affect the health of the adolescent have been administered through the Department of Health, Education, and Welfare.

These programs are in four general groups: programs that offer categorical health services for the adolescent (such as detection and control of venereal disease, prenatal care, or family planning) but are not beamed directly at his health needs; programs that attempt to provide comprehensive health care services for the adolescent; innovative programs that represent promising areas of research into problems that may affect the adolescent either directly or indirectly; and programs that detect and treat children's illnesses.

Categorical Approaches

The advantage of a categorical approach is that it enables a program to focus limited manpower and funding on a specific health problem. A disadvantage is that such an approach may label the individual with a diagnosis and leave him in a vacuum. This does not suggest that such programs be abandoned, but it does indicate the value of incorporating them into a meaningful service base addressed to the total needs of the individual.

The Center for Disease Control in HEW develops categorical health programs that serve adolescents and also collects data about health conditions. Its program for the prevention and control of venereal diseases is directed to the general population, but includes efforts to meet the special health needs of adolescents.

Other HEW agencies using the categorical approach to health care delivery for teenagers include:

The Office for Family Planning, which funds contraception and health education programs that reach many adolescents. In FY 1974, 29 percent of the 2,188,261 patients seeking services in this program were age 19 or younger, according to the National Reporting System for Family Planning Services.

The Office for Migrant Health, which may reach adolescents through health services directed to the entire family of the migrant worker. Estimates are that 35 percent of the total migrant farm worker population are between 14 and 17 years of age.

The Indian Health Service, which reaches the adolescent Indian living on the reservation through programs directed to the entire tribe.

The Community Health Centers, which offer ambulatory care services that are essentially family-based, and therefore include adolescents as family members.

Comprehensive Approaches

The use by the Federal Government of the concept of comprehensive care in service projects has been a recent development; comprehensive care programs received an estimated 2 percent of Federal health care monies in the fiscal year 1975.

A notable example of this approach is the special projects authorized under title V of the Social Security Act. Originally begun by the Children's Bureau, these projects were subsequently administered by the Maternal and Child Health Service and more recently by the Bureau of Community Health Services. Maternity and infant care projects were initiated in 1964 to serve low-income pregnant women who lived in innercity and rural areas and where infant mortality was extremely high. The projects sought to provide comprehensive prenatal care, including nutrition, dentistry, and broad social services as well as medical and nursing services, family planning, and patient education. Later, four similar programs were started to serve other low-income, high-risk, or medically underserved groups: comprehensive preschool and school-age health projects for children, neonatal intensive care projects, dental health projects for children, and family planning projects.

Congress authorized the projects for a specific time and these time limits were twice extended. Since July 1974 the projects have been financed by the States out of maternal and child health formula funds from HEW. Each State is required to operate a program of projects, including at least one of each of the five types.

To a considerable extent, the children and youth projects—with their emphasis on adolescents as well as on children—and the maternity and infant care programs—which gave special attention to the needs of adolescent mothers—dramatized the scope of services required to offer a meaningful approach to adolescent needs. They also underscored the importance of enriching adolescent services by affiliations with medical schools, teaching hospitals, and children's hospitals.

The basic maternal and child health and crippled children's services, which were authorized under title V when the Social Security Act was passed in 1935, also have focused direct attention on the needs of adolescents. These programs have been administered through formula grants. Each State decides the extent of coverage available under a State plan. To the extent that a State maternal and child health program has been involved in school health programs such as nutrition and prenatal care, these have been available to adolescents.

While each State determines its own definition of the crippling conditions it will accept for care under its crippled children's services program, adolescents with either chronic or acute conditions that are covered by the program have been eligible for treatment.

The National Institute on Drug Abuse (NIDA) has funded many studies and demonstrations for the rehabilitation of adolescent drug abusers that involve comprehensive services. One is a training program for professional health workers from many disciplines, held at the Haight-Asbury Clinic in San Francisco.

The NIMH Center for Studies of Child and Family Mental Health has helped in funding programs designed to meet the health, emotional, and educational needs of the teenager.

Research-Based Approaches

One example of programs that represent promising areas of research into adolescent problems was the Consortium on Early Child Bearing and Child Rearing in Washington, D.C. This interagency effort was supported by many agencies within HEW, including the Office for Maternal and Child Health, the Office of Education, the Office for Family Planning Services, Social and Rehabilitation Service, National Institute of Child Health and Human Development, and the Office of Child Development.

The consortium was begun in the 1960s to gather information about programs that serve teenage parents and their children and to assimilate information about relevant State laws affecting care of infants born to young mothers. This organization fostered the establishment of comprehensive educational and medical programs for pregnant school-age girls, who previously would have been expelled from classes in many school systems. The consortium identified more than 200 such programs throughout the United States and operated an information exchange about activities in this area.

The Early and Periodic Screening, Diagnosis, and Treatment Program (EPSDT) began to have some impact on the States in the 1970s. This program, which is administered by the Social and Rehabilitation Service of HEW, specifies that private care of children from birth to 21 years will be paid for by Federal funds if certain criteria are met. Potentially 14 million children are eligible for care.

EPSDT was authorized in 1967. By July 1, 1975, most States had initiated programs to serve all children under 6 years of age within their borders. Such programs have concentrated on the screening phase.

It was more than 7 years after the law was passed before many older children were accepted and treatment was offered for conditions found by screening. Establishing guidelines for screening teenagers on a periodic basis was difficult because the program was viewed as a pediatric service with adolescents attached only for reasons of their financial eligibility.

As stated earlier, children must be considered from the standpoint of their maturational, not their chronological, age. This poses a quandary for directors of EPSDT programs serving teenagers when questions of invasion of privacy, confidentiality, and parental consent arise.

Other Federal Programs

Other departments of the Federal Government, notably Labor, have been involved with teenage health programs.

Within the Department of Labor, the Job Corps provides its enrollees with health services that encompass physical examinations, an extensive gonorrhea testing program, a program for drug abusers, and mental health services. The Corps also conducts an active health education program. At least three university programs in adolescent medicine provide service and consultation to Job Corps health efforts. (39)

Because enrollees stay usually only a few months, a full evaluation may not be completed, and corrective therapy such as dentistry may be unfinished. The Corps' experience in providing a planned program of health care to the teenagers suggests that further followup would be almost impossible. The Job Corps has produced excellent manuals on medical procedures for the older adolescent that could serve as textbooks for professionals addressing similar problems.

School Health Programs

There are 51 million children and young people attending school in the United States. Theoretically this is a captive audience for which health services could be provided with ease. However, not all teenagers attending any one school are eligible for a complete range of health care. Traditionally, services have been limited to preventive measures, health education, screening for vision and hearing, and assessment of fitness for athletics.

School health programs also receive support through State formula funds available under title V, Social Security Act. These programs may be operated either by local health departments or boards of education. Wherever the control is placed, some collaboration exists between the two local agencies.

The effectiveness of school health programs varies from community to community. Many schools do not have big enough health budgets to provide adequate medical or nursing coverage for students, and acute problems are usually handled by the homeroom teacher or the principal. The programs often consist of little more than annual immunization and tuberculin testing. The potential remains, however, for using school health programs to bring health services to the entire enrollment of adolescents.

There has been much criticism of the health education provided in schools, probably because sex education has become such a predominant factor in such courses. Many parents are polarized in their opinions about sex education outside the family or church; some teachers are unwilling to accept sex education assignments. The dilemma about the age at which different levels of sex education should be initiated indicates the maturational inequality of children in elementary, junior high, or high school.

The teacher's assessment of an adolescent student's behavior can be a valuable coordinate in a total evaluation of performance. Teachers should be discouraged from labeling young people with diagnoses, but a check list showing

typical behavior is of significance. The quality of cognitive performance, attitudes of withdrawal or overaggressiveness, and bizarre behavior patterns are equally important.

This information could be a valuable contribution for the development of a profile of each teenager without demanding too much of the teacher. (The teacher's attitudes may also be revealed if, for instance, class records show that all male students of the teacher are "overaggressive."

Background information about a community population may be developed as an extension of individual ratings, and knowledge of the incidence of drug and alcohol usage, sexual activity and delinquency for the peer group may become available. It is pertinent to consider individual behavior within the context of the individual's environment. Community problems may come to light if many young people show the same deficiencies.

College Health Services

Changes are taking place in college student health services. Dr. Addie Klotz, director of Student Health Services at the University of Southern California, has, with others, made a great contribution toward the provision of improved student health programs.

Dr. Klotz has recognized an increased student awareness about health as expressed by demands for different and more responsive health services on campus. With this challenge, academia is gradually reconsidering its initial reluctance to recognize needs in areas of vital concern to the students—sexual problems, VD, contraception, abortion referral, drug abuse, and mental health.

Some college students are involved in their own health programs, with student advisory committees identifying special needs. Students who collaborate with a health center and its staff are also making valuable contributions to the overall college program.

The utilization of a college health unit by students is a direct reflection of the image that the program portrays to them. It is estimated that the staff of a good college unit should be seeing 1 percent of the student population daily for advice, diagnosis, or treatment.

Innovative Health Care Models

Projects to demonstrate radical and untried approaches to health care face many problems. They may have difficulty attracting sponsors initially, and inevitably they operate on a shoestring. The consequent dilemma is that without adequate funds, standards of medical care may be unsatisfactory and the sponsoring organizations may withdraw their support to protect their own reputations.

Realistically, this situation will continue until funds are available to hire full-time well-prepared staff who insist on a high level of clinical care. Only then will it be possible to evaluate the success of the methods used.

With this truism in mind, here are some illustrations of noteworthy innovations in the delivery of adolescent health care.

Free-Standing Clinics

The first free-standing clinic was set up in the Haight-Asbury section of San Francisco, California, in 1967 to care for drug emergencies. The original subculture of communes and "brotherly love" was shattered by the influx of thousands of confused, upset, unhappy young people who sought immediate answers to life's problems.

The inadequacy of food, housing, and hygienic facilities soon brought disaster. Health problems reached epidemic proportions and were intensified by the indiscriminate use of drugs on the street. It soon became apparent that general medical care was needed. The young people were so alienated from society that they would not turn to traditional facilities. Lack of transportation and financial resources postponed care until extreme emergencies arose; even then many were not accepted at existing medical centers. (40)

In the mid-1970s, the Haight-Asbury Clinic is still operating, but the atmosphere of emergency and excitement has gone. Health services are being provided for young people, many of whom have left their families and adopted a different lifestyle. The clinic's tempo is slower, and planned comprehensive services can be made available.

Boston is another favorite area for teenagers who have left home. These runaways form small

communes that coalesce to make up the street community. A program of mobile medical care for alienated youth was initiated during the summer of 1970 by Drs. Andrew Guthrie and Mary Howell, from the children's service of Massachusetts General Hospital and the Department of Pediatrics, Harvard Medical School. It attempts to reach the youth who are in Boston by meeting them on their own terms wherever they congregate. A mobile medical van brings services to those living in the streets. They are offered care—free of criticism or attempts to compromise their beliefs. This has been a successful outreach program. Of the estimated 30,000 runaways in Boston, ages 12 to 24 years, 592 patients were seen in the first 6 weeks of operation. (41)

The free clinic movement has apparently served a useful purpose in responding to health care needs outside the traditional system. However, recent unofficial reports suggest that youth are returning to institutional medicine as their resource for health problems. It appears that as the establishment unbends and recognizes the capabilities and rights of adolescents, the adolescents are becoming more tolerant of the establishment and its systems, including health care.

Crisis Counseling

The hotline system started in 1968 with the opening of emergency telephone service at the Children's Hospital of Los Angeles because the hospital staff was concerned about the increasing number of youngsters who lacked avenues of communication to service resources during stress. The service was conceived as a crisis intervention resource with a sympathetic but objective listener as available as the nearest telephone.

The crises most frequently presented are related to peers, parents, drugs, housing, isolation, loss of psychological control, and suicide. Those who staff the hotline telephones are carefully selected and then trained for this service. The hotline is closely affiliated with the medical institution from which it emerged and uses the adolescent unit for continued backup support. This service handles more than 150,000 calls a year. (42)

Peer Counselors

In a program at the University of Maryland in Baltimore, adolescents attending a family planning clinic may receive information and even advice from other teenagers who work regularly with the clinic staff. These peer counselors are able to communicate successfully about contraception and other sensitive topics. Many teenagers—female and male—seem to accept guidance more readily from their peers than from older people who present the same information and alternatives.

The peer counselors receive orientation and supervision from clinic staff members, and learn to recognize situations that require referral to a more experienced worker.

Recent observations based upon wide experience with peer counselors suggest that utilization of young adolescents as counselors is not a satisfactory approach. The adolescents with characteristics appropriate for counseling are usually gifted teenagers, who have many extracurricular interests and are not willing to be pinned down to a single time-consuming activity. Those who are available may not have the appropriate skills. A counseling service requires continuity to achieve its goals; therefore, program administrators are recruiting stable, community-based workers who will make a relatively long-term commitment.

Multiservice Urban Youth Center

The Door—A Center of Alternatives is an innovative multiservice center for disadvantaged and troubled youth in New York City. It is aimed at helping young people between the ages of 10 and 21 years meet the challenges of growing up in an urban environment. Special emphasis is placed on the health and mental health of adolescents; on prevention and treatment of drug abuse, venereal disease, and psychological disorders; on providing meaningful educational alternatives for youth; and on reaching the particularly vulnerable younger adolescent on the streets and in the schools before they become seriously involved in negative or antisocial activities.

A number of physicians recognized the need for such services: many young people will not go to health clinics or hospitals because of fear, alienation, or lack of money. When young peo-

ple do seek help, the purely medical facilities they turn to are often unable to handle the variety of psychosocial problems that are intertwined with their medical problems.

The Door was established in January 1972 as a model project to demonstrate the feasibility of providing comprehensive health services and constructive alternatives for young people in an effective and humane manner. It has developed an integrated program combining the best features of a free clinic and a complete community center.

Dr. Loraine Henricks, a practicing psychiatrist who is one of the cofounders and codirectors of The Door, has described its clients as young people who are unlikely or unable to seek help from traditional health facilities. She has pointed out, "It serves a mixture of street youth, high school and junior high school youth, school dropouts, disadvantaged youth from the innercity, runaway youth from the suburbs, college youth, working youth, and young people on welfare." During the first 3 years of operation, the center recorded more than 100,000 visits from young people.

The Door offers free medical and gynecological services, family planning and nutrition counseling, psychiatric counseling and therapy, and much more. It also provides crisis intervention, legal, educational, vocational, and drug counseling services, and leadership training.

The Door has a core of full-time and part-time administrative, coordinating, and clinical staff. In addition, the large volunteer staff includes many youth-oriented professionals who hold regular positions in hospitals, schools, youth programs, drug programs, and social agencies in New York City.

Services for Teenage Parents

Services for teenage parents and their infants were started in many communities during the 1960s because it is difficult for a teenage girl to assume a mothering role while she attends school. When the maternal grandmother takes over, the problem may be temporarily solved but may start long-lasting friction. Many babies of teenage mothers are at risk and need special care. Support of the young mother before and after delivery may be provided by the nurse. The social worker may help with the plans for return to school, employment, or adoption. Some day-care facilities have special interest in caring for infants of young mothers.

WHERE WE ARE NOW

Many young people have complained about the health care system being immobilized by its own bureaucratic red tape. The frustrations of endless waiting for decisions about eligibility or a referral appointment do not encourage teenagers to seek care within the system. Realistically, however, staff members are affected by pressures of agency work and sometimes fail to conform to a teenage patient's concepts of humanitarianism—especially if the teenager seems negative or hostile.

State laws governing the rights of non-emancipated and emancipated minors are far from consistent. Several States had considered modification of their discriminatory laws by the mid-1970s.

A "Model Bill for Minors' Consent to Health Services" was published in the correspondence section of Pediatrics in November 1973. This short document was compiled by the Committee on Legislation of the Society of Adolescent Medicine, under the chairmanship of Dr. Andrew Rigg.

The model bill states that parents should participate in all health care decisions about their minor children whenever feasible, but no legal barrier should prevent minors from receiving needed health care. "Minor," "emancipated minor," "parent," and "health services" are defined. Conditions for consent, financial responsibility, and the health professionals' liability are described.

By 1975 there were efforts to make sure that all eligible older children have personal Medicaid cards. At that time such cards were available for teenagers only in California and New York State.

National Organizations

Much support is available through national professional organizations interested in the adolescent. The American Academy of Pediatrics addresses health needs of children from birth to 21 years. Committees and sections are set up to provide a focus for certain special areas, including several with an adolescent focus. The Youth Committee, the School Health Section, and the Section on Community Pediatrics are particularly active on behalf of the adolescent. The Academy publishes policy statements, prepared by its various committees and sections, which provide the practicing physician a reference point for new areas of concern.

Statements issued between 1968 and 1974 covered such subjects as sexual problems in children and youth, teenage pregnancy and the problem of abortion, venereal disease and the pediatrician, counseling related to human reproduction, and health standards for juvenile court residential facilities. In addition, specific guidance statements on hypertension and steroid therapy were circulated to fellows of the Academy.

Statements were made available during 1974-75 on athletic activities for mentally retarded children, concepts of school health, tuberculin testing, salt intake and high blood pressure, and milk drinking for children.

The Society for Adolescent Medicine (SAM) was chartered in April 1968, with Dr. Roswell Gallagher as the first president. SAM has fostered the idea that while health professionals are still concerned with specific diseases, broad issues involving the physical, mental, social,

and educational health of their patients are assuming greater importance. Society membership is open to all professionals engaged in health service, teaching, or research concerned with the welfare of adolescents.

Other organizations such as the American Medical Association, American Public Health Association, American College of Obstetricians and Gynecologists, National Association of Social Workers, and the American Nurses Association, are also concerned about teenagers. Discussions of health care delivery and quality of care for adolescents are receiving increasing prominence in journals and conference agendas of these groups.

Training

Post-residency fellowships are offered in many medical centers. These are usually filled by young physicians who have already completed training in general practice, pediatrics, internal medicine, or psychiatry. The adolescent medicine curriculum usually combines postgraduate training with experience in outpatient clinics, inpatient units, and neighborhood health centers, sometimes in connection with public health, school, college, or other community organizations. In 1974-75 there were 45 fellowships in adolescent medicine across the country in 24 institutions. These fellowships provide an ongoing supply of physicians to initiate or replenish teaching, research, and service units of large medical centers.

Research

Federal Panel on Adolescent Research

The Interagency Panel for Research and Development on Adolescence seeks to improve coordination of Federal agency planning, funding, and implementation of research and to achieve greater comparability of research findings about teenagers. Membership is drawn from the U.S. Departments of Agriculture, Housing and Urban Development, and Labor and the Office of Management and Budget, as well as 10 agencies of the Department of Health, Education, and Welfare that conduct or support research about adolescents. The Office of Child Development is the coordinating agency for the panel.

Members meet regularly to determine gaps in research on adolescents and to suggest priorities and new directions. The panel has given considerable attention to the problems involved in relating the findings of studies that use different populations and settings to investigate the same subject. Such cross-study analyses are difficult to make because of the variability in definitions, measures, and procedures used by research teams.

The panel has sponsored several conferences on comparability in research, including one for editors of research journals and another for university staff members who are charged with training future research workers.

National Institute of Child Health and Human Development

The Growth and Development Branch, National Institute of Child Health and Human Development, HEW, has initiated an expanded program to broaden knowledge of adolescent development.

The branch has sponsored three multidisciplinary conferences—"The Control of the Onset of Puberty," October 1972; "The Nutrient Requirements of Adolescence," June 1973; and "Adolescence in the Life Cycle," emphasizing behavioral aspects, October 1973.

Participants included staff of the Growth and Development Branch and foreign and domestic investigators from many disciplines, who assessed knowledge in the field. Published proceedings of the conferences are expected to serve as primary reference volumes and to identify specific research areas for investigators of adolescent development.

From these conferences and consultation with experts on adolescence, the Growth and Development Branch has identified five areas of major emphasis for research:

1. Biological processes involved in the onset and completion of puberty.
2. Nutrition as it contributes to adolescent maturation and change; the relationship be-

tween nutritional requirements and endocrine function; improved ways of expressing adolescent nutrient needs, especially within the context of the adolescent growth spurt.

3. Intellectual development, including cognitive changes and events that take place during adolescence; speech, language, and thought processes characteristic of the adolescent; the interaction of cognitive processes with motives and attitudes.

4. Adolescent socialization, particularly the way social patterns or structures influence the adolescent to engage in or disengage from appropriate role behavior during rapid transitions.

5. Endocrine and psychological development concerning the relationship between changing hormonal level and psychosocial development and behavior during adolescence.

Maternal and Child Health Research

Proposals for research projects on methods of care to improve the health of adolescents are accepted by the Health Services Improvement Branch, Bureau of Community Health Services, HEW.

The branch has funded studies of various aspects of health service delivery, from clinic self-assessment plans to the use of nonprofessional health workers; the teenager's selection and use of contraceptives; the effect of teenage pregnancy on schooling patterns; certain nutritional correlations; and many other subjects related to the health of children and mothers.

Breckenridge Conference

The Breckenridge Conference on Youth, Health, and Social Systems was held in November 1973 in Breckenridge, Colorado, under the sponsorship of the Bureau of Community Health Services and the National Institute of Mental Health. This represented a significant breakthrough in the involvement of health-related systems as well as representative young people. The purpose of the conference was to examine the process needed to develop and redirect health services for adolescents.

For some time previously, the Federal Government and others had been interested in determining the total effort needed in the field of adolescent health care. Adolescence was recognized as an important period of human development in which the attendant problems have received too little systematic attention by health care professionals.

The rationale for the conference included the belief that a multidisciplinary approach was needed to identify, make recommendations, and further implement programs for youth in health care. To the conference planners, this effort meant much more than providing easily accessible treatment to all youth for specific health problems. The conference was concerned with providing visibility to the interrelation of all social systems with special reference to their impact on health. It emphasized the involvement of youth in solving problems that this interrelation redefined. (43)

Teenagers at the conference made many references to the insensitivity of existing social systems and the impersonal quality of services. They also pointed out that patients—particularly teenage patients—are often treated as anonymous numbers, which postpones or turns off the development of a meaningful relationship with the professional.

Eight issues were discussed in depth at the conference and the following recommendations were made:

1. Health Care Delivery. Development of specific legislation identifying comprehensive adolescent health care centers as a high priority approach to the health needs of adolescents. In the meantime, development of present programs treating adolescents along disease-specific areas into model centers for comprehensive health care. An intensive look at the problems of third-party payment and adolescent health care.

2. Legislation. Enactment of legislation to ensure adolescents the same rights as adults. Elimination of compulsory mental health confinement for minors. Serious consideration to reclassification of ethyl alcohol as a dangerous drug.

3. Research. Development of research efforts to explore in depth the interaction of mind and body. Study of the value of alternative thera-

peutic approaches. Collection and analysis of epidemiological data to give meaning to future planning.

4. Education of Health Professionals. Inclusion of study of youth problems in undergraduate and graduate health professional training.

5. Education of the Adolescent. Revision of the educational system to provide more relevant curricula.

6. Alternatives to Juvenile Correctional Systems. Development of alternatives to present detention centers to discourage recidivism.

7. Youth Involvement. Enunciation of an Adolescent Bill of Rights that states every adolescent has a right to be a participant in decisions affecting his own health care.

8. Minority Health Needs. Identification of the special health needs of minority youth and of existing facilities available to them, and study of why these are not being used.

Dr. Dale Garell, conference director and former director of adolescent medicine at Children's Hospital of Los Angeles, said that the conference was designed to serve as a catalyst, not an end in itself. Almost all of the 70 participants and staff have continued to work on the conference goals. Three regional working groups were established, and six national task forces were inaugurated: education and training; youth services; law and legislation; demonstration, evaluation, and research; minority group needs; and youth forums.

The conference coordinator, Children's Hospital of Los Angeles, continued to serve during the 6 months following the conference. An office was established to arrange meetings, develop a newsletter, and serve as a clearinghouse for information exchange and dialogue between conference participants.

A second conference was held in Washington, D.C., in April 1974 to review recommendations and progress reports since Breckenridge and implement a continuing mechanism for dialogue and information exchange.

First International Symposium on Adolescent Medicine

An international meeting, believed to be the first of its kind, was held in Helsinki, Finland, in August 1974 to present data and discuss findings related to adolescent health.

There were representatives from 11 countries, including 30 representatives from the Society for Adolescent Medicine in the United States. The program included presentations of scientific data related to abnormal growth patterns and longitudinal cross-cultural research. However, much of the agenda was devoted to psychosocial problems, gynecological and sex problems in adolescence, and learning and school problems.

Informal discussions among participants showed that all countries in the developed world are concerned about the adequacy and relevance of their health services for adolescents.

FUTURE DIRECTIONS

The broad picture presented here leaves no grounds for complacency about the provision of health care for the adolescent. The degree to which tomorrow's citizens are underserved today is a deficiency that health planners at the national level have failed to observe. To formulate remedies for this situation is at best difficult.

Services

Health services must be made more accessible, appropriate, and acceptable to youth. Fragmentation of services must be avoided, however good the pieces may be in themselves. Efforts must be made to use a central medical home base to coordinate activities on the patient's behalf. The patient must be able to identify with this home base and relate freely with the staff.

Service providers must accept the premise that adolescents can best be evaluated in terms of their maturational age, regardless of their chronological age.

Prevention of disease, linked with screening and the early detection of abnormality, is the most hopeful approach. But for prevention to be truly effective, to achieve absolute reductions of morbidity, "It is the population denominator that must be attacked, not the numerator," according to Dr. Donald Muhich, of Affiliated Behavioral Consultants, Los Angeles. Those adolescents who have already been identified as having health problems appear in the numerator of the equation, and these youngsters will not be helped substantially by preventive measures. However, characteristics of those who appear in the denominator of the equation may be influenced by prevention and health education and it is this change that may reduce the size of the high risk group in the numerator.

All adolescents are susceptible to all the conditions mentioned earlier. Pathways of communication no longer run in an organized pattern, and the youth of affluent suburbia are exposed to the same hazards as the ghetto teenagers, in spite of differences in environmental, financial status, and parental behavior.

Different systems are still being explored for delivery of health services. It is likely that no single method will evolve, but if planners follow certain principles, they will extract those elements that are pertinent and feasible in a given situation.

The effect of other social systems on the outcome in health is receiving continuing recognition, and there are attempts to provide more coordination between agencies. Health cannot develop in isolation from education, welfare, labor, housing, recreation, social services, and the law.

Use of the school system as the center of health care for the child from 5 to 18 years is open to serious question. School health programs have not had a high degree of success in past years, in spite of their captive audience. The educational system must be included in the total picture of adolescent health, but it is doubtful whether it can take a major role in meeting health needs.

Training

It is unlikely that the manpower pool will ever supply a large number of health professionals who will specialize exclusively in adolescent

health. Therefore, adolescent medicine should be included in undergraduate curricula in all medical schools, schools of nursing, and other professional programs, so that all health practitioners who meet adolescents will have the necessary knowledge and experience to develop comfortable and meaningful professional relationships with them.

Departments of maternal and child health in schools of public health usually offer orientation to the implications of adolescence. This would be an ideal time to teach the health leaders of the future about the comprehensive approach required to prevent these problems of teenagers.

Today, the health care of adolescents as a special high-risk group is not always included in the curriculum. Often the topic is fragmented into family planning, venereal disease, drug abuse, and so on.

Since few young people receive their care in highly specialized medical centers, the inservice short-term training of general practitioners, pediatricians in practice, public health nurses, and others in neighborhood settings is an excellent investment of time and money. Most professionals who have not had courses or experience are leary of involvement with adolescents. Such training gives the health worker some orientation to adolescent care and supervised interviewing and clinical experience.

Just as it is desirable to have an interdisciplinary health team, it is also advantageous to have a clear-cut interface between the medical specialists. The pediatrician may well be the central figure in a system of consultation that encompasses the internist, obstetrician, gynecologist, general practitioner, and other specialists on the staff team working to improve patient care.

Research

Some practical problems of today's adolescent health care may be solved through research. For instance, there is no data to show what would be the optimal age for the first complete pelvic evaluation of girls who are not yet sexually active. Information is needed on cultural differences in acceptance of this procedure, the yield of previous pathological studies of teenagers, and the psychological effect on girls at different ages and at different levels of maturity.

The value of health education in a teenage family planning clinic could be determined. Does individual counseling have a more direct effect than that of group counseling? A controlled study on this question might be very productive.

The effect of television viewing on school performance, physical fitness, visual problems, and behavioral patterns has not been fully explored in the adolescent. The inner life and the general psychosocial development of the teenage male is a neglected area, although a few studies have been conducted on development and serious complications in the adolescent female.

Epidemiological surveys of the characteristics of children 10 to 21 years of age are not readily available.

No yardstick is available to judge "normal" behavior of teenagers at any age or for any activity. There is a need to study common behavior patterns, against which specific problems could be assessed. A look at more common practices around certain social issues might help to reestablish a norm.

These are only a few areas in which research can provide answers or information about adolescents—information that will be invaluable to the decisionmakers of the future in the development of responsive programs.

Evaluation

Programs should look at what they have accomplished if they are to plan wisely for the future. Evaluation should go beyond simple counts of heads attending clinics and services rendered, and demonstrate how those services changed the health status of the people who received them.

Analyses of reasons for visits to adolescent clinics have been helpful in planning future staffing patterns and space requirements.

CONCLUSIONS

Adolescents have achieved an identity as a population group showing certain common characteristics that transcend the confines of geography, economics, education, culture, and race. The health problems of these adolescents are often closely related to their life style. Existing health care delivery systems are not responsive to teenagers' needs; future planning must take into account the mores of young people.

There is now no unified approach to the development of health care programs for adolescents, but important explorations of alternative methods are taking place in a fragmentary way. The challenge is to provide the necessary technology and professional expertise in an accessible setting, and then to weld these services into programs that will become cohesive and stable.

Analyses of data show that adolescents seek help more often for primary and preventive care than for serious illnesses. Services are particularly needed for addictive problems, emotional disorders, suicidal states, and conditions related to sexual activity. Consideration of the effect of adolescent behavior on the reproductive cycle is of the utmost importance.

The sequelae of unplanned conception and venereal disease can be extremely serious for the immature girl and her baby. Therefore, the opportunity for health education, birth control, and prenatal care should be priority goals in any program for adolescents. The option for abortion counseling and services should be available within the limits of the law. The provision of comprehensive services for the young mother and her baby should be included in the overall plan.

Approaches to ambulatory care for adolescents include an age-specific program, satellite clinics with hospital backup, and the inclusion of young people in planning services. Care should be comprehensive and continuous, provided by a multidisciplinary staff team. Counselors need not be fully trained health professionals, but those who are employed in this capacity should be able to make a relatively long-term commitment.

The ideal approach to health care delivery for adolescents has not yet been established, but it must obviously do more than merely cope with a series of episodic emergencies. Evaluation of underground self-help methods is needed, even if in the last analysis these methods are found to be irrelevant and are discarded. The health of teenagers automatically and immediately affects the well-being of the following generation. Therefore, all possible effort should be directed to improve the situation.

Financial and legal barriers should be removed so that health care is available to all, regardless of income or age. Social systems that affect the adolescent should coordinate their activities at all levels.

The family life of teenagers has been a neglected area of study. In developing a productive relationship with adolescents, pediatricians frequently appear to exclude the parents. This is not intentional, as separate interviews are usually conducted to inform interested parents on the progress of their offspring. A pattern of separating family members in the solution of a family problem may serve to reinforce the problem, however. In any case, complete confidentiality is hard to maintain under these circumstances, and the teenagers themselves often prefer an open discussion if all members of the family are prepared to participate.

Carefully timed family discussions with the

pediatrician (or other professional) serving as moderator give an opportunity for both sides of the question to be considered. As the air is cleared, direct communication can be achieved. An analysis of the total family dynamics may be obtained by observing members interacting with each other. When conclusions are kept factual and nonjudgmental, individuals may become aware for the first time of what is happening to them, and how they are responding.

The decrease of family influence and the effect of trends and pressures on the American family were discussed by Senator Walter Mondale in an article in "News and Comments," published by the American Academy of Pediatrics in November 1974. He pointed out:

"We often take things for granted in this country, until some crisis captures our attention. Environmental and energy concerns are good examples of issues to which we have paid very little attention until recently. The health of American families is perhaps the best example of something we still take for granted. The importance of families is often overlooked, especially in the decision-making process of government and the discussion of children's problems. . . .

"Pediatricians have traditionally been concerned with the social and emotional wellbeing of children in addition to their physical health. With the scientific advances of recent years and the delegation of many tasks to assistants, pediatricians are able to devote increasing amounts of time to involvement with family problems, to counseling of adolescents and to participation with community organizations whose expertise may be needed to ameliorate family problems." (44)

Adolescence has been described as a period of change and crisis. Teenagers who are passing through this phase of growth and development may be highly receptive to guidance and intervention. Health professionals should focus on this basic availability of their clientele and respond to the desire for help, however masked it may be. In this way, the future may be changed from an era of adolescent medicine to one of adolescent health.

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☆ U.S. GOVERNMENT PRINTING OFFICE : 1976 O – 207-193